

National Aviation Safety and Management Plan

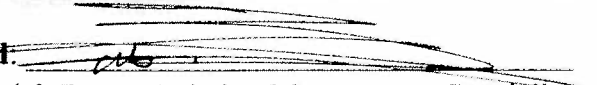


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National Aviation Safety and Management Plan

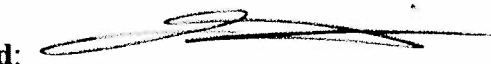
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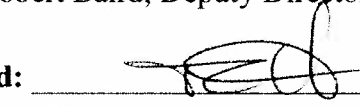
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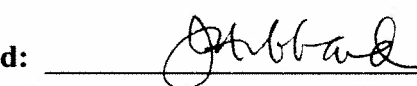
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2013

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1.0 Aviation Management Plan

1.1 Purpose

The purpose of the Forest Service National Aviation Safety and Management Plan (NASMP) is to describe National Fire and Aviation Management (FAM) leaders' intent, authority, roles and responsibilities, programs, activities, and to provide strategic and operational direction and operational guidance to each organizational level. Individual Regions and Units may supplement this plan when needed. This plan is supplemental to policy and does not replace [Forest Service Manual 5700](#) and [Handbook 5709.16](#).

The Forest Service, U.S. Department of Agriculture must endeavor to place the safety of employees above all else and ensure recognized hazards are mitigated. The Forest Service's goal is to develop a culture that achieves and maintains a zero accident rate. Prior to conducting any work projects, all risks should be mitigated to the lowest acceptable level. Incorporating [Safety Management Systems \(SMS\)](#) with a strong Quality Assurance (QA) component will improve the operating model for safety, efficiency, and effectiveness.

Regional Supplement:

Forest Supplement:

1.2 Mission Statement

Aviation Management in FAM supports agency resource management programs through a proactive and professional aviation program that:

- Efficiently develops and coordinates aviation policy and management processes.
- Provides risk management for both aviation programs and aviation operations.
- Utilizes aviation safety assurance and promotion programs.
- Provides support for aircraft acquisition as specified by Forest Service management objectives.
- Develops and promotes a skilled aviation management workforce.
- Supports a systems-wide approach to safety and management considering all functional areas and scales regarding fleet, vendors, cooperators, program, and personnel.

Regional Supplement:

Forest Supplement:

1.3 Leaders' Intent

The Forest Service's aviation program goal is to provide aviation tools that safely and efficiently accomplish missions related to the task of managing national forests. Aircraft are dynamic and high impact resources that can be both expensive and unforgiving when used carelessly. These resources require competent operational oversight; and appropriate utilization of aviation resources can drastically improve operational effectiveness and efficiency, while reducing cost and overall risk. Aviation management requires balanced and pragmatic consideration of multiple complex factors, including safety, the environment, costs and mission goals.

Safety

- Safety is a priority and core value of our organizational culture.
- Provide safe and healthy procedures for all our employees, volunteers, and partners.
- Risk management as part of SMS will be inherent in all aviation missions.

- All aviation personnel are empowered and expected to manage the risks associated with aviation operations, and to make reasonable, prudent, and timely decisions to this effect.
- Plan missions thoroughly, err on the side of conservatism, and respect both your aircraft and the environment in which you operate.
- Individuals will be held accountable for their decisions, which should be based on policy, principles, risk management, training, experience, and situational factors.
- Employees are empowered to report hazards, safety concerns, near misses, incidents, and accidents without fear of reprisal.
- The agency is committed to ensuring our employees are prepared to recognize hazards and take immediate action to mitigate the hazard to an acceptable level.

Professionalism

- Personnel performing aviation functions must meet all qualification requirements of the Forest Service Manuals, Handbooks, and Guides.

Performance

- Personnel perform aviation functions in a safe manner, adhere to policy and procedures, avoid shortcuts, and report potential hazards, safety issues, near misses, incidents, and accidents.

Transparency

- Aviation operations are conducted openly and information regarding safety, cost, effectiveness, and impact is shared with affected partners.

Diversity

- Individual development, employee wellness, and workforce diversity will be encouraged at all levels of the Forest Service aviation program.

Innovation

- With a commitment to aviation safety and efficiency, managers at all levels are responsible for enhancing the aviation program.

Regional Supplement:

Forest Supplement:

1.4 Aviation Doctrine

Management has defined policy and doctrine in [FSM 5700](#) that conveys aviation safety expectations and objectives to employees. Aviation safety policy in [FSM 5700](#) addresses roles, responsibilities, and authorities regarding aviation safety at each organizational level.

This process starts with a clear value-based philosophy of what the organization and its business model should be and what it is about. The relevance of safety principles to Forest Service doctrine for aviation management cannot be overstated. These principles permeate the aviation management business model and drive [SMS](#) program design.

“As an organization our commitment is to manage risk to the lowest practical level.” This effort is an iterative process that requires diligence in the following principle areas:

- Develop and maintain a safety culture that recognizes the value of safety management systems;

- Clearly define the duties, responsibilities, and accountabilities for all employees;
- Provide all employees with adequate training and information to enhance performance;
- Comply with or exceed all regulatory and agency specific requirements;
- Proactively manage the risks associated with our operation;
- Standardize risk management as a part of the aviation operations planning process such that all deliberate/strategic risk assessments follow the general format found in section 3.5 of the [SMS Guide](#).
- Ensure externally supplied services and materials meet or exceed all regulatory and agency specific requirements;
- Determine specific performance goals and consistently measure performance against those goals;
- Conduct internal management and safety reviews to improve performance;
- Encourage all employees to report errors and safety issues in the spirit of a just culture.
- To formalize risk management as a part of the planning process, risk assessments should follow the format found in section 3.5 of the [SMS Guide](#).

Quality Principles

Top management shall ensure that quality policies and procedures are consistent with [SMS](#) requirements defined in this manual. [SMS](#) quality management (assurance and control) processes shall be consistent with agency to improve the efficiency of the entire organization.

1. “Create a constancy of purpose.” Replace short-term reaction with long-term planning. This applies to action plans that make adjustments for weaknesses and deficiencies.
 - Avoid reactive fixes to organizational problems.
 - Define the problems of today and the future.
 - Allocate resources for long-term planning and plan for high quality services.
 - Constantly improve product and service.
2. “Adopt a new philosophy.” Meaningful change can only take place from within the organization. Change focus from operations output to quality service.
 - Quality costs less not more.
 - The call for major change comes from the top.
 - Stop waiting for direction from upper management and instead seek direction by evaluating field customer needs.
3. “Cease dependence on inspection to achieve quality.” Quality does not come from inspection alone. If quality is designed into the process, and standards are fully implemented, then variation is reduced, and there is less need to inspect operations for defects.
 - Inspections should be used to collect data for process control and to provide input to guide management decisions resulting in a reduction in potential errors.
 - Quality cannot be achieved through reactive identification and elimination of errors because it perpetuates the fly/crash/fix/fly cycle.
4. “Do not award business based on price tag alone.” Move towards a single supplier for any one service. Multiple suppliers mean greater potential for variation between service providers. Our actions should be focused on the detection of variations between vendor standards to identify the

best service provider. The selection of a single vendor providing best value for cost may reduce errors and cost, validating the transition to fewer vendors.

- Price alone has no meaning; change focus from lowest cost to best value/cost.
- Work toward a single source for like types of services.
- Develop a longer term relationship (contract) between the operation and vendor.

5. “Improve constantly the system of production and service.” Each new action must constantly strive to reduce variation and introduce mitigations that reduce mishaps and improve effectiveness.

- Quality starts with the intent of management, which is found in directives.
- Design Quality into the system with a fundamental focus on team work in design.
- Constantly maintain awareness and continue to reduce waste.
- Constant improvement of the system requires greater efforts than reactively responding to errors and issues.

Aviation Promotion Principles

Management must be committed to the implementation of SMS as their highest priority: to provide safety resources, to continuously improve safety practices, and to provide a framework for responsibility and accountability.

1. “Institute a program of education and self-improvement.” Personnel need a thorough grounding in the principles, tools, and techniques of SMS. People must learn new ways of working together as teams and adopt new behaviors that support the new management philosophy.
 - Educate for higher awareness in management and in customers.
 - Develop team-building skills in employees.
2. “Break barriers among staff areas.” Another idea central to QA is the concept of the ‘internal customer,’ which in our case may mean that management processes, antiquated policies, budget allocations, and hiring restrictions are the barriers to our success. We need to act to correct such inefficiencies.
 - Promote team work to identify internal barriers and satisfy the internal customer.
 - Know your suppliers’, customers’, as well as your own inefficiencies.
3. “Adopt and institute leadership.” Leadership means designing the system around high standards, building a quality culture, and modeling behavior that exemplifies the values to support such a culture.
 - Remove barriers to foster pride of workmanship and recognize positive outcomes.
 - Leaders must know the work they manage and supervise.
4. “Take action to accomplish the transformation.” Everyone in the organization must work together to facilitate change management.

Forest Service Aviation Managers at all levels in the program should:

- Be proactive within the implementation of the change management process.
- Take pride in the new doctrine and the QAPP.
- Include a cross section of people to implement the change from the top to the bottom.

1.5 National Aircraft Management Strategy

Aviation resources are one of many tools available to accomplish land management objectives. The use of aviation resources has value only if it serves to accomplish these objectives. In order to maximize effectiveness and efficiency, aviation resources must be centrally coordinated while aviation operations must be locally executed.

Aviation use must be determined based on strategic management objectives as determined by Line Officers, identified hazards, risk mitigation, and the probability of success. The risk management process must consider the risks to aircrew, ground resources, and public, weighing them against the risk of forgoing the mission.

The agency aviation program goals are:

1. The Aviation program has the right people, in the right places, with the budget and staffing necessary for the work to be completed safely.
2. Aviation leadership is skilled in aviation program management, articulates leaders' intent, inspires the workforce, and appropriately manages the program.
3. The Aviation program is clearly defined for the Washington Office HQ and at the Boise detached unit at NIFC.

More information regarding aviation program goals can be found at:

http://www.fs.fed.us/fire/aviation/av_library/AVIATION%20PROGRAM%20STRATEGY%20SUMMARY%20112009.pdf

The agency is currently updating the Forest Service Aviation Strategic Plan.

Regional Supplement:

Forest Supplement:

1.6 Authority

This plan fulfills the requirements outlined in [FSM 5700](#). This plan sets the standard that will be aviation policy and has been developed to provide standardization and policy for aviation programs. While this document is Forest Service specific, it does incorporate interagency standards.

Regional Supplement:

Forest Supplement:

1.7 General Policy

The policy of the Forest Service requires employees to follow the direction in aviation manuals, handbooks, and the aviation guides as listed in this chapter, under [FSM 5706](#).

Regional Supplement:

Forest Supplement:

2.0 Aviation Management Organization

2.1 Organization

The Washington Office (WO) Fire and Aviation Management (FAM) is located at the Forest Service, U.S. Department of Agriculture (Forest Service) National Headquarters in Washington D.C. and has a detached unit in Boise, ID at the National Interagency Fire Center (NIFC).

The Forest Service has nine Regional Offices and the North East Area located throughout the United States.

Region 1: Missoula, MT

Region 2: Golden, CO

Region 3: Albuquerque, NM

Region 4: Ogden, UT

Region 5: Vallejo, CA

Region 6: Portland, OR

Region 8: Atlanta, GA

Region 9: Milwaukee, WI

Region 10: Juneau, AK (Fire and Aviation oversight in Portland, OR)

Northeast Area: Newtown Square, PA

There are five (5) Research Stations, one (1) Institute, and one (1) Laboratory.

Pacific Northwest Research Station: Portland, OR

Pacific Southwest Research Station: Berkeley, CA

Rock Mountain Research Station: Ft. Collins, CO

Northern Research Station: Newtown Square, PA

Southern Research Station: Ashville, NC

International Institute of Tropical Forestry: San Juan, PR

Forest Products Laboratory: Madison, WI

Each Region/Station/Area has several Forests/Units located within their geographical location or area of responsibility.

2.2 Washington Office (WO) Headquarters Staff:

Washington D.C. Staff

Director, Fire and Aviation (FAM)

The Director, FAM, is responsible to the Deputy Chief for State and Private Forestry. The Director, FAM's responsibilities are located in the [FSM 5704.2](#), [FSM 5720.43](#), and the [FSH 5709.19, Chapter 10](#).

Deputy Director, FAM Operations

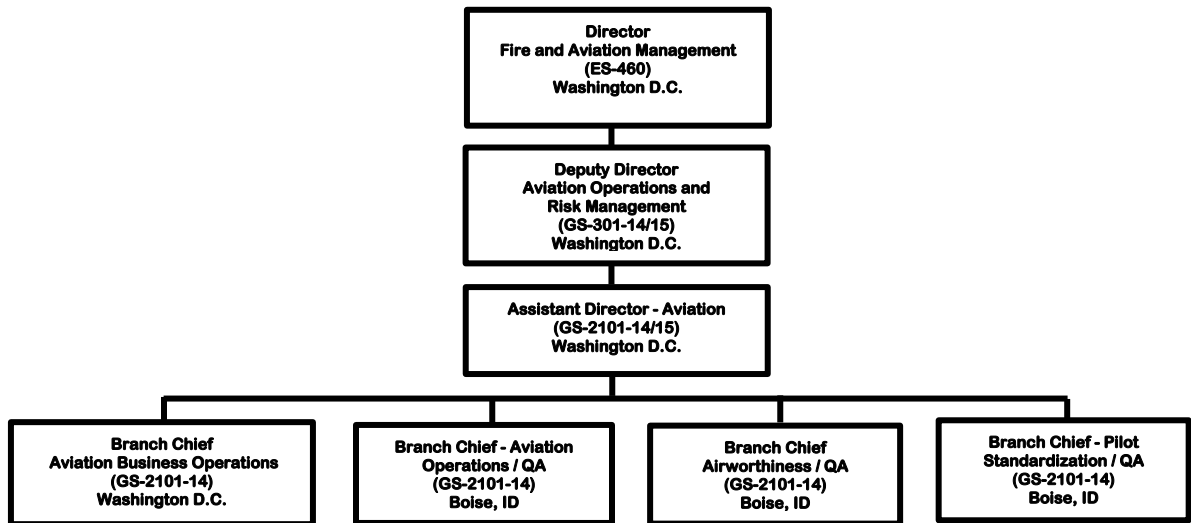
The Deputy Director, Operations' responsibilities are located in the [FSM 5704.21](#) and the [FSH 570916, Chapter 50](#).

Assistant Director, Aviation

The Assistant Director, Aviations' responsibilities are located in the [FSM 5704.21](#). The Assistant Director, Aviation provides national program direction, leadership, and management of the Forest Service aviation program, including coordination of aviation activities with other staffs, agencies, and groups, with an emphasis on Aviation Planning, Budget, Policy, Operations, Aircraft Airworthiness, and Quality Assurance. The Assistant Director, Aviation supervises:

- Branch Chief, Aviation Business Operations – Washington D.C.
- Branch Chief, Aviation Operations – Boise, ID
- Branch Chief, Airworthiness – Boise, ID
- Branch Chief, Pilot Standardization – Boise, ID
- Aviation Strategic Planner – Washington D.C.

FIRE and AVIATION MANAGEMENT
Washington Office Headquarters and Washington Office Boise
Aviation Operations



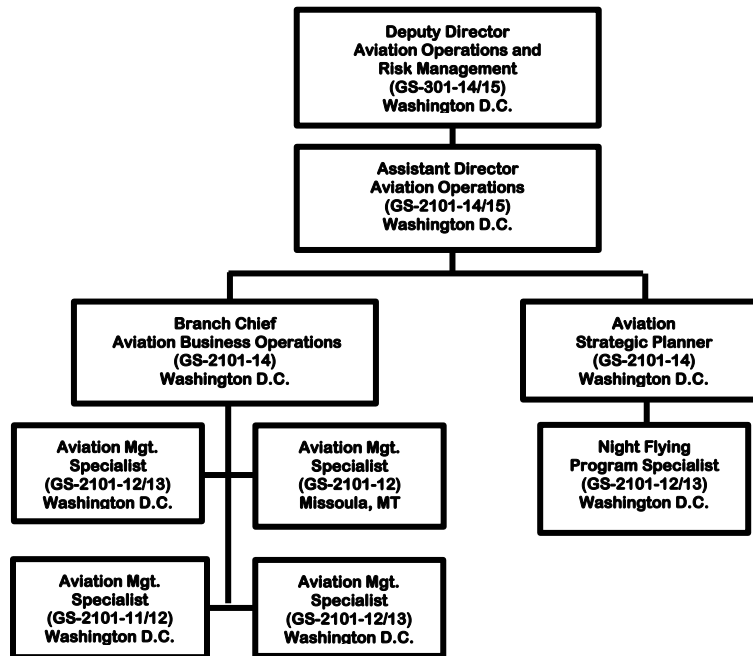
Branch Chief, Aviation Business Operations

The Branch Chief provides oversight, planning, coordination, and direction for aviation policy, budget, reporting, and analysis. The Branch Chief ABO supervises four Aviation Management Specialists.

Aviation Strategic Planner

The Aviation Strategic Planner develops aviation strategy for the Forest Service. The Aviation Strategic Planner supervises the Night Flying Program Specialist.

FIRE and AVIATION MANAGEMENT
Washington Office Headquarters
Aviation Operations



Branch Chief, Aviation Operations / Quality Assurance

The Branch Chief, Aviation Operations provides oversight, coordination, and direction of aviation operations conducted by the National Office, Regions, Stations and Area. The Branch Chief supervises the National Helicopter Program Manager, National Airtanker Program Manager, National Aircraft Coordinator, National Aerial Supervision/Light Fixed Wing Program Manager, National Helicopter Operations Specialist, National Smokejumper/Large Fixed Wing Program Manager, and National Rappel Specialist. The Branch Chief's responsibilities are located in the [FSM 5704.22](#) and [FSH 5709.16, Chapter 10, 10.41c](#).

National Helicopter Program Manager

The National Helicopter Program Manager:

- Provides oversight for the helicopter program
- Serves as principal helicopter program advisor to National Contracting, Fire and Aviation HQ staff and the Regions in the development and implementation of policies, programs, and standard practices for helicopter programs and specialized projects.
- Responsible for performing contract helicopter inspections and pilot approvals.
- Serves as the contact and coordination point for industry groups and cooperating agencies regarding contract helicopter approvals and operations.

National Airtanker Program Manager

The National Airtanker Program Manager provides national airtanker program leadership, coordination, oversight, and interagency cooperation.

National Aircraft Coordinator

The National Aircraft Coordinator is responsible for the coordination and direction of aircraft activities conducted by the National Office in coordination with the National Interagency Coordination Center. The National Aircraft Coordinator:

- Provides technical oversight and Contracting Officer Technical Representation (COTR) support for nationally contracted aircraft.

National Aerial Supervision/Light Fixed Wing Program Manager

The National Aerial Supervision/Light Fixed Wing Program Manager provides national program leadership, coordination, and interagency cooperation for the aerial supervision program and advisor to Contracting, Fire and Aviation HQ staff and Regions in the development and implementation of policies, programs, and standard practices for the light fixed wing aircraft and programs.

National Helicopter Operations Specialist (NHOS)

The National Helicopter Operations Specialist is responsible for the oversight, coordination, and direction of helicopter operations activities conducted by the National Office. The NHOS:

- Provides primary technical oversight and support for WO contracted helicopters, including the responsibility for contract pilot approval, either in person or through regional/interagency pilot inspector designees.
- Providing oversight and assistance to regional helicopter program managers.

National Smokejumper and Large Fixed Wing Program Manager

The National Smokejumper and Large Fixed Wing Program Manager provides national program leadership, coordination, and interagency cooperation in the smokejumper program and is program advisor to Contracting, Fire and Aviation HQ staff, and Regions in the development and implementation of policies, programs, and standard practices for large fixed wing aircraft and programs.

National Rappel Specialist (NRS)

The NRS is responsible for the oversight in developing, recommending and implementing rappel standards, objectives, plans, and policies for the national rappel program.

The NRS:

- Provides oversight and continuous coordination of the national rappel program
- Assures standardization, quality assurance, integration and coordination among the rappel program to ensure that the program and equipment reflect aviation management policy direction, objectives, and regulations.

Branch Chief, Airworthiness / Quality Assurance

The Branch Chief supervises Aviation Maintenance Inspectors (Airworthiness), Aviation Safety Inspectors (Avionics), Aeronautical/Aerospace Engineer, and an Aviation Budget Analyst. The responsibilities of the Branch Chief are in the FSM 5704.23.

Aviation Safety Inspectors – Airworthiness (5)

The Aviation Safety Inspectors – Airworthiness:

- Provide oversight for delegated National/Regional program areas.

- Perform National and Regional Aviation program quality assurance, inspections and evaluations to support Forest Service.
- Establish work programs for inspection, monitoring, audits and surveillance.
- Evaluates compliance with Forest Service policy and Federal Aviation Regulations ([14 CFR](#)) with respect to airworthiness, maintenance, preventive maintenance, and alteration programs.
- Provides expert technical representation on agency and interagency working groups.
- Prepares and reviews technical specifications for aircraft, aircraft equipment/modifications, maintenance, and inspection requirements

Aviation Safety Inspectors – Avionics (2)

The Aviation Safety Inspectors – Avionics:

- Performs National and Regional aviation avionics program management, including planning, organizing, implementing, and controlling the aviation avionics program.
- Accomplishes equipment, aircraft, and operator inspections and evaluation to support the Forest Service.
- Evaluates compliance with Forest Service policy and Federal Aviation Regulations ([14 CFR](#)) with respect to avionics, avionics maintenance, avionics installations, and alteration programs.
- Inspects the avionics of multi-engine piston, or twin-engine turboprop aircraft as well as various fixed and rotor wing aircraft owned, contracted by or cooperated with by the Forest Service.
- Prepares and reviews technical specifications for avionics and inspection requirements, contract rewrite evaluations (e.g., Subject Matter Expert) and contract pre-award evaluation.
- Submits findings and recommendations to the National and/or Regional office which result from surveillance and inspections of aircraft.

Aeronautical/Aerospace Engineer (1)

The Aeronautical/ Aerospace Engineer:

- Provides oversight of Forest Service owned Type Certified Data Sheets (TCDS) and Supplemental Type Certificates (STC), and the Forest Service Operational Loads Monitoring (OLM) Program.
- Assists in the evaluation of proposed new equipment and aircraft modifications.
- Member of the Forest Service Airworthiness Working Group and/or the Interagency Airworthiness Practices Board.
- Interfaces with engineering representatives from aircraft and equipment manufacturers.
- Makes up a part of the airworthiness approval process for UAS utilized by the Forest Service.

Aviation Budget Analyst (1)

The Aviation Budget Analyst is responsible for analyzing and evaluating aviation cost and use data for aviation plans and reports; aviation business cases; managing projects; financial analysis and assessment of compliance with laws and regulations. The Aviation Budget Analyst also completes the Federal Aviation Information Reporting Systems reporting and working capital fund analysis and reports.

Branch Chief, Pilot Standardization / Quality Assurance

The Branch Chief supervises a Fixed Wing Standardization Pilot, Helicopter Standardization Pilot, and Helicopter Inspector Pilots. The Branch Chief, Pilot Standardization / Quality Assurance:

- Identifies and approves qualified pilot instructor, check, and inspector pilots.
- Maintains current listings, including all mission and aircraft authorizations, of all qualified instructor, check, and inspector pilots.

National Fixed-Wing Standardization Pilot (1)

The National Fixed-Wing Standardization responsibilities are in the FSH 5709.16, Chapter 20, 20.42.

National Helicopter Standardization Pilot (1)

The National Helicopter Standardization responsibilities are in the FSH 5709.16, Chapter 20, 20.44.

National Helicopter Inspector Pilots (4)

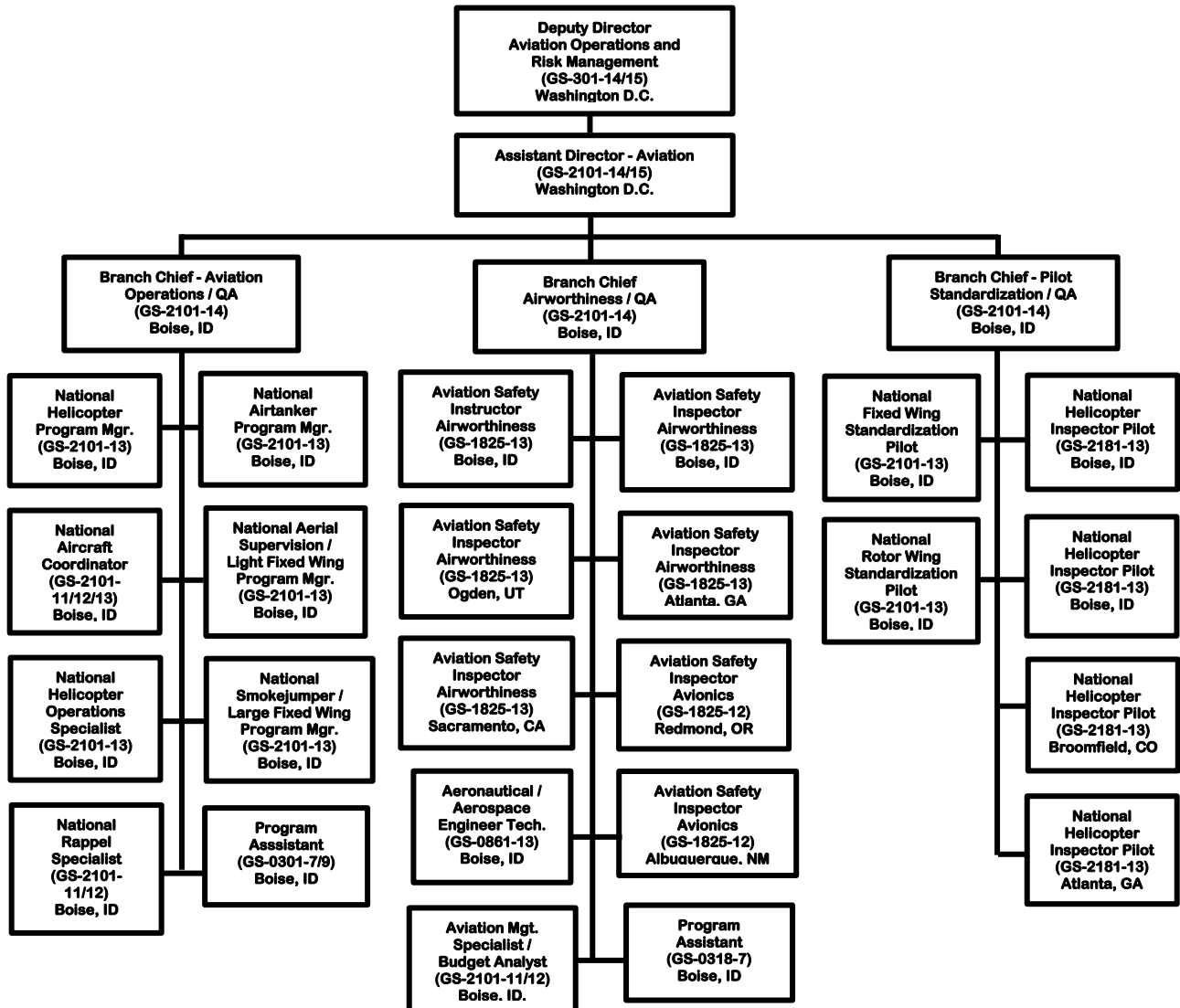
The National Helicopter Inspector Pilots:

- Provides leadership and oversight for the development and implementation of a national helicopter pilot and training program.
- Provides expertise necessary to support the USFS National Standardization and Quality Assurance initiative for oversight of national contract operations.
- Administers pilot evaluations for the purpose of determining an individual's suitability to perform special use missions typical of natural resource operations.
- Provides technical oversight of pilots, aircraft, and equipment used in support of agency missions.

Two NHIPs are stationed in Boise, 2 virtual (Colorado and Georgia).

FIRE and AVIATION MANAGEMENT

Washington Office Boise Aviation Operations, Air Worthiness, and Quality Assurance



Assistant Director, Risk Management

The Assistant Director, Risk Management supervises one Branch Chief, Aviation Safety Management Systems.

Branch Chief, Aviation Safety Management Systems

This position has the operational responsibility for development, implementation, and monitoring of the Aviation [Safety Management Systems](#), including oversight of the following key SMS components:

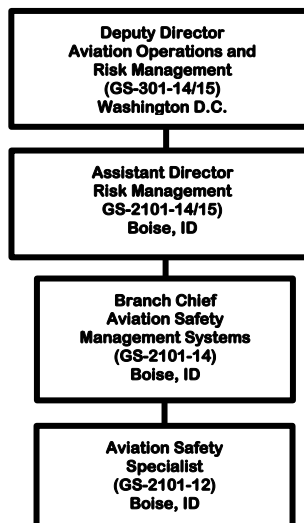
- Policy, including managing and coordinating implementation of the National Aviation Safety Management Plan.
- Risk management.
- Safety Assurance.
- Safety Promotion, including training programs.

- Reporting accidents and incidents to the Director, Fire and Aviation Management Staff, Washington Office and to Forest Service and Department Safety and Health officials.
- Determining the classification of mishaps as accidents, incidents with potential or incidents
- Management and oversight of Aviation Safety Systems including; National Aviation Safety Center, System Safety Enterprise Team, National Aviation Safety Council, [SAFECON](#) reporting system, aviation safety training and education.
- Maintains a process for data collection and analysis as well as evaluation of aviation risk management and operational safety.
- Establishes safety criteria and standards for National aviation contracts.
- Coordinates with the National Aviation Officer, Logistics, to assure aircraft airworthiness standards and aircraft selection in Agency and service provider aircraft types and provides guidance for final fleet composition.
- Provides program oversight and direction for aviation education and training, including interagency aviation training (IAT), System Safety Leadership for Agency Managers (SSLAM) and Lessons Learned.

National Aviation Safety Specialist

The National Aviation Safety Specialist is responsible for service-wide programs involving the development and implementation of plans and programs in aviation safety and standardization for aviation safety programs.

Washington Office Boise Fire and Aviation Management Risk Management



Forest Health Protection Aviation Safety Manager

The Forest Health Protection Aviation Safety Manager (FHP NASM) is responsible for coordinating Forest health aviation safety and operations with the appropriate Regional Aviation Safety Manager or Regional Aviation Officer.

2.3 Regional Office (RO) Staff

Regional level aviation organizations vary based on workload and overall organization. The Regional Aviation Officer and Regional Aviation Safety Manager are the two consistent positions.

Regional Forester

Regional Forester responsibilities are located in [FSM 5704.3](#).

Regional Aviation Officer (RAO)

The RAO is responsible for the oversight, coordination, and direction of aviation operations activities conducted by the Regional Office. The RAO responsibilities are located in the [FSM 5704.3](#), [FSH 5709.16, Chapter 10, 10.42b](#) and [FSH 5720.48b](#).

Regional Aviation Safety Managers (RASM)

The RASM reports to the Director or the Deputy Director and are responsible for implementation, fostering and promoting SMS, including Policy, Risk Management, Assurance and Promotion. Their responsibilities are located in the [FSM 5720.48d](#).

Regional Aviation Safety Inspector, Airworthiness / Regional Aviation Maintenance Program Manager

The ASI, Airworthiness is responsible for the maintenance and airworthiness program conducted by the Regional Office. The ASI responsibilities are located in the [FSH 5709.16, Chapter 40, 40.44, 40.45](#) and in the FS Aircraft Inspection Guide (AIG).

Regional Aviation Safety Inspectors – Avionics

The ASI, Avionics, performs National and Regional aviation avionics program management, including planning, organizing, implementing and controlling the aviation avionics program. The ASI accomplishes equipment, aircraft, and operator inspections and evaluation to support the National and Regional Forest Service.

Regional Supplement:

2.4 Forest Staff

Line Officer

Line Officer responsibilities are located in [FSM 5704.6](#), [FSM 5711.04](#), and [FSM 5720.48a](#).

Forest Aviation Officer/Unit Aviation Officer (FAO/UAO)

The FAO/UAO manages the forest aviation program by providing technical and management direction of aviation resources to support Forest programs. The FAO/UAO should meet the Aviation Manager qualifications in [IAT Guide](#). The FAO/UAO responsibilities are located in the ([FSM 5704.61](#)). Some Forests employ “service-first” positions to fulfill the FAO/UAO responsibilities. On those units, the position is referred to as a UAO.

All Employees

All employees involved in aviation activities are responsible for acquiring, knowing, and following aviation policy and regulations ([FSM 5704.09](#), [FSM 5720.46](#)). Employees are encouraged to participate in the on-going go-no-go decision making process and are reminded that they have the authority to make conservative decisions during any aviation operation.

Forest Supplement:

2.5 Additional Aviation Positions

Station Aviation Officer (SAO)

The SAO manages the station aviation activities by providing oversight and technical direction of aviation resources to support station aviation activities. The SAO should meet the Aviation Manager qualifications in [IAT Guide](#).

Regional Supplement:

Forest/ Station Supplement:

2.6 National Groups/Committees

National Aviation Team (NAT)

The National Aviation Team consists of all members of the Aviation Division, including the Assistant Director -Aviation, five Branch Chiefs, Aviation Strategic Planner, Program Managers and supporting staff.

NAT Branch Chiefs Committee

The NAT Branch Chiefs Committee is comprised of all the Aviation Branch Chiefs (Aviation Operations / Quality Assurance, Airworthiness / Quality Assurance, Pilot Standardization / Quality Assurance, Aviation Business Operations, and Aviation Safety Management Systems)

Interagency Committee on Aviation Policy (ICAP)

This committee is chaired by the General Services Administration (GSA) and includes all federal agencies that own or hire aircraft. GSA established the committee at the direction of the President's Office of Management and Budget (OMB). GSA publishes regulatory policy for aircraft management in [41 Code of Federal Regulations \(CFR\) 102-33](#), "Management of Government Aircraft," and [41 CFR 300-3; 301-10; and 301-70](#), "Travel on Government Aircraft."

[OMB Circular A-126](#), "Improving the Management and Use of Government Aircraft, provides the basic guidance for management of federal aviation programs and for travel on government aircraft."

National Interagency Aviation Council (NIAC)

The Committee is established to serve as a body of resident aviation experts, assisting NWCG with realizing opportunities for enhanced safety, effectiveness, and efficiency in aviation related operations, procedures, programs and coordination. [NIAC](#) is chartered under the Equipment and Technology Branch of NWCG.

Committee membership will reflect a mix of people who are knowledgeable in the subject area and who represent NWCG member agencies and organizations, including representation from DOI Office of Aviation Services (OAS).

NIAC Sub Committees include:

- Automated Flight Following Subcommittee
- Interagency Aerial Supervision Subcommittee
- Interagency Airspace Subcommittee
- Interagency Airtanker Base Operations Subcommittee
- Interagency Airtanker Board (IAB)
- Interagency Aviation Training Subcommittee (IAT)
- Interagency SEAT Board
- Smokejumper Aircraft Screening and Evaluation Board (SASEB)
- Interagency Helicopter Operations Subcommittee (IHOps)

- Aerial Capture Eradication and Tagging Animals Unit (ACETA)
- Interagency Aerial Ignition Unit
 - Helitorch Subunit
- Interagency Helicopter Operations Guide Unit (IHOG)
- Interagency Helicopter Rappel Unit
 - Rappel Equipment Subunit
- Helicopter Short Haul Unit

2.7 Program Overview

The Forest Service aviation program is comprised of national, regional and forest level personnel and aircraft.

From the national office, the Forest Service takes the lead in owning and/or contracting several aviation assets used by the interagency wildland firefighting community including Very Large Airtankers (VLATs), Large Airtankers (LATs), smokejumper aircraft, Type I, II and III helicopters, Aerial Supervision Module (ASM) airplanes, Infrared (IR) airplanes, and other fire and resource management aircraft. These assets are acquired for the primary use of the Forest Service; however, they are available for use by other federal, state, and county partners as specified in agency policy and procedure.

Regions and Forests can contract for several aviation assets including, but not limited to, Forest Health Protection (FHP) airplanes, Type III helicopters, aerial supervision airplanes, and other fire and resource management aircraft.

The majority of Forest Service aviation use is for wildland fire management and support. Other aviation uses include forest health protection, wildlife survey, law enforcement, and projects related to natural resource management and administrative flights.

Regional Supplement:

Forest Supplement:

3.0 Administration

3.1 General

The administration section establishes management responsibilities, policies, and procedures for the administration of the aviation program in the Forest Service.

Regional Supplement:

Forest Supplement:

3.2 Reporting and Documentation Requirements

The Forest Service is responsible for providing for the following;

- Responses to Department of Agriculture [Office of Inspector General \(OIG\)](#) audits.
- Responses to Congressional inquiries.
- Meeting the requirement of the [Federal Requirement for Federal Aviation for Interactive Reporting System \(FAIRS\)](#).
- Approving and documenting senior executive travel in agency and agency-procured aircraft as required by [OMB Circular A-126](#).
- Retaining contract management records for 6.5 years.
- Complying as applicable with existing records holds and freezes for all records.
- Responding to [Freedom of Information Act](#) (FOIA) requests – All aviation records are subject to Freedom of Information Requests.

Regional Supplement:

Forest Supplement:

3.3 Aviation Plans

All Aviation Management Plans must be approved by the appropriate line officer ([FSM 5711.04](#)).

Regional Supplement:

Forest Supplement:

National Aviation Safety and Management Plan (NASMP)

The NASMP provides information regarding Forest Service aviation organization, responsibilities, administrative procedures, and policy and is intended to serve as an umbrella document that Regional and Forest Aviation Plans tier from. The Director, FAM, will develop and maintain an Aviation Management Plan that is updated and supplemented ([FSM 5711.04](#)). The NASMP is approved by the Deputy Chief, State and Private Forestry, annually.

Regional, Northeast Area or Station Aviation Management Plans (RAMP)

Each region, the Northeast Area (NA), and Stations should publish a RAMP that implements national policy and describes protocols specific to each regional aviation program. The RAMP serves as an umbrella document for Forest Aviation Management Plans. The regional directors shall supplement and annually update the aviation management goals, objectives, programs and activities, and strategic direction at each organizational level ([FSM 5711.04b](#)). The RAMP is approved by Regional Foresters annually.

Regional and Northeast Area and Station Homeland Security Response Plan

Each Region, NA, and Station must develop a Homeland Security Response Plan that details the security actions that each Region, NA, and Station will implement, based upon the Homeland Security threat level. The Regional, NA, or Station Homeland Security Response Plan must be reviewed by the Fire and Aviation Management staff, HQ Washington Office ([FSH 5109.16, Chapter 50, 52.1](#)). The Regional, NA, and Station Homeland Security Response Plans are approved by the Regional Forester.

Regional and Northeast Area Aviation Safety Plan

The RASM has the responsibility to prepare the Regional Aviation Safety Plan ([FSM 5720.48d](#)). The Regional, NA Aviation Safety Plan is approved by the Regional Forester/ Director NA annually. Regional FHP unit aviation officers and Station Aviation Officers have the responsibility to draft FHP/Station Aviation Safety Plans that either tier to the RAMP or appear as an appendix within the RAMP.

Regional and Northeast Area Aviation Mishap Response Plan

Regional Foresters and/or Area Director have responsibility to ensure that every Forest Service unit that utilizes aircraft develops and annually updates, an aviation mishap response plan ([FSM 5720.48a](#)). The Regional and NA Aviation Mishap Response Plan is approved by the Regional Forester/ Director NA.

Forest and Station Aviation Management Plans (FAMP/ SAMP)

Forests and Stations are required to maintain and update unit aviation plans annually, which implement national and regional policy and establish local procedures and protocol. The Forest Service and Station Directors shall supplement and update annually the aviation management goals, objectives, programs and activities, and strategic direction at each organizational level ([FSM 5711.04b](#)). The FAMP/ SAMP is approved by the appropriate Forest Supervisor/ Station Director annually.

Facility Homeland Security Response Plan

Each aviation facility must develop a Facility Homeland Security Response Plan that is specific to that aviation facility and details the security actions the facility will take for each Homeland Security threat level. The Facilities Homeland Security Response Plan is approved by the appropriate Forest Supervisor annually.

Forest and Station Aviation Mishap Response Plan

Forest Supervisors, Station Directors, district rangers, and other officials designated with line authority have responsibility to ensure that every Forest Service unit that utilizes aircraft develops and annually updates, an aviation mishap response plan ([FSM 5720.48a](#)).

Project Aviation Safety Plans (PASP)

A [PASP](#) is submitted independent of a Forest, NA, or Station Aviation Management Plan. For all non-emergency aviation projects, a PASP shall be developed and approved as required in the [FSM 5711.04](#) and [FSM 5711.1](#).

Mission Use of Aircraft (Operational) Plans

Mission Use of Aircraft (Operational) Plans shall be developed and updated annually to address aircraft operations.

Specific Operational Plans will be developed for national, regional or local permanent and temporary: Airbase Operations

Helitack/Rappel operations (Exclusive Use)

Smokejumper operations

Airtanker operations

- Very Large Airtanker
- Large Airtanker
- Scoopers
- Single Engine Airtankers (SEATs)

Aerial Supervision

Light Fixed Wing operations

Law Enforcement & Investigation operations

Forest Health Protection (FHP)

Research

Natural Resource management and protection

Elements of the plans shall include at a minimum: organization, identification of typical missions, mission risk assessment and mitigation, training program, and administrative procedures. The agency must use a risk management based approach for every task, seeking to identify hazards that may interfere with the safe and successful completion of the task at hand. The Mission Use of Aircraft (Operational) Plans shall be approved by the appropriate line officer ([FSM 5711.04](#)).

Regional Supplement:

Forest Supplement:

3.4 Aircrew Orientation Briefing Package

All Forests that host permanent aviation bases shall create an Aircrew/Pilot Orientation Briefing Package. The Aircrew/Pilot Orientation Briefing Package serves as a source of information to provide visiting pilots, aircrews, and Incident Management Teams. Elements of the briefing package should include:

- Leader's intent
- Local frequencies and their use (to include map if available)
- Contacts, name title, phone (may include vendor information)
- Local sunrise/sunset charts
- Local airport information (to include a map)
- Local lodging information
- Local water sources/dip sites (name, latitude and longitude, ownership, hazards, elevation, contact information).
- Helispots (name, latitude and longitude, map or aerial photo)
- Map depicting MTRs and Special Use Airspace
- IA size-up card
- Local medical evacuation information (including nearest burn and trauma centers)
- Local hazards (map and description)
- Airport crash rescue procedures
- Map and description of jettison areas
- Local flight following procedures (AFF and/or radio contact)
- Aviation Operations Plan
- Special considerations

Regional Supplement:

Forest Supplement:

3.5 Land Use Policy for Aviation Activities

The regulation of aviation activities on or over Forest Service managed lands is solely dependent on Land Management Plans (LMP) direction and any applicable [FARs](#).

Temporary aviation operations on Forest Service lands may be restricted due to LMP direction. FAOs should coordinate with resource managers to identify areas of restriction when developing Operating Plans, Forest Aviation Management Plans, and [PASP](#). When identified by resource managers, FAOs should implement any invasive species control measures for aviation activities. FAOs also coordinate reporting of any fire chemical aerial application in or near waterways.

Regional Supplement:

Forest Supplement:

3.6 Budget

Budgeting is completed on a three year cycle. Out year budget requests are submitted to Congress in the President's Budget in February, six months prior to the fiscal year for which they were submitted. The budget request is then vetted separately through the Department of Agriculture and [Office of Budget Management \(OMB\)](#). Finally, it is then aggregated with all other agency and program requests into the President's Proposed Budget. The current year budget is finalized after congress passes an Appropriations bill.

Regional Supplement:

Forest Supplement:

3.7 Contracting

Aircraft are acquired through different types of contracts, Exclusive-Use (Ex-Use), Call-When-Needed (CWN), Indefinite Delivery/Indefinite Quantities (IDIQ), or End Product.

Exclusive-use contracts are generally used when the agency has a definite aircraft need for a specific period of time. Ex-Use aircraft are guaranteed a minimum amount of use through a Mandatory Available Period (MAP). Daily availability is usually cheaper with Ex-Use contracts since the vendor is guaranteed a minimum amount of work.

Call-When-Needed contracts are a way for the agency to have ready access to a pool of aviation assets that meet a minimum standard, usually used for non-recurring missions or during periods of surge activity often related to wildland fire suppression. The disadvantages are that the aircraft may not be available, the agency personnel and vendor personnel don't have the same opportunity for crew cohesion that an Ex-Use crew has, and that daily availability rates are generally higher since the vendor has no guaranteed work.

IDIQ and End Product contracts are often used for projects such as aerial application of pesticides or other types of work where: 1) the precise limits of the treatment area or quantity of material is uncertain or the contract may span multiple years (IDIQ) or 2) only the desired outcome is specified and/or specific area of treatment is known (End Product).

Refer to Section [3.10](#) for End Product Contracts.

Regional Supplement:

Forest Supplement:

3.8 Aircraft Contract Start/Modification/Extension

Aircraft contract start dates and MAP are a coordinated decision between the National Office and Regions.

Regional Supplement:

Forest Supplement:

3.9 Contractor Performance

All CWN and Ex-Use contractor performance will be documented in accordance with [FSH 6309.11](#). It should be noted that [SAFECON](#)s are not used to determine contract awards.

Regional Supplement:

Forest Supplement:

3.10 End Product Contracts

An end-product contract is intended to efficiently and effectively accomplish certain projects with no internal operational controls or specifications from the Forest Service aviation personnel. Certain aviation operations, such as aerial application of herbicides and insecticides, seed, fertilizer, prescribed burn projects, and some Burned Area Emergency Rehabilitation (BAER) projects may be administered in a more efficient and less expensive manner if contracted on an end-product basis, instead of through a Forest Service flight services contract. Refer to [FSM 5711.2](#) for more information on end-product contracts.

Regional Supplement:

Forest Supplement:

3.11 Supplemental Fire Aircraft Acquisition

RESERVED

Regional Supplement:

Forest Supplement:

3.12 Cooperator Aircraft

Cooperative aircraft operations and partnerships are encouraged in order to increase efficiency and enhance procedure standardization. The Northeastern Area, Regional Offices, and the States shall make a concerted effort to establish cooperative structures to increase capability and avoid duplication and conflicting procedures.

Use of state/local government, military, or other federal agency aircraft by Forest Service employees may require prior inspection and approval by Forest Service or AMD, usually in the form of a Cooperator Letter of Approval. Proposed use of these aircraft should be requested through the FAO to

the RAO. Any employee wishing to ride on cooperator aircraft or work around a cooperator aircraft operation must consult their respective aviation manager.

Cooperator agreements for all aviation services provided to the Forest Service by other agencies and cooperators must specify levels of operational standards and safety comparable to those required of agency or contractor operations ([FSM 5710.35](#)).

When the Forest Service utilizes other governmental agency aircraft for non-fire missions, an agreement should be created and at a minimum address:

- Payment
- Operational Control
- Aircraft Management
- Performance Planning
- Mission Profile
- Landing Zones (When Applicable)
- Agreement Expiration Date
- [Public /Civil Aircraft Utilization Dispatch Work Sheet \(Public Law 103-411\)](#) (When Applicable)

Fire Missions:

- Create a resource order

Non-Fire Missions:

- Completed cost analysis
- Complete [Project Aviation Safety Plan \(PASP\)](#)

Military and cooperator aircraft approval shall meet the requirements in the [FSM 5713.43](#).

See [Appendix 10.1](#) for Sample Letter of Cooperator Approval.

See [Appendix 10.2](#) for Cooperator Approval Guide.

Regional Supplement:

Forest Supplement:

3.13 Aircraft Administrative Use and Reporting

Utilize the Forest Service [Administrative Use of Aircraft Desk Reference](#) to provide guidance and clarify the Administrative Use of Aircraft.

The [USDA Property Management Regulation \(PMR\) 110-33](#) supplements Federal Management Regulation 102-33 Management of Government Aircraft. Both documents are agency wide policy for the use of Government aircraft to accomplish official business. In coordination with the [Office of Management and Budget Circular A-126](#), they restrict the operation of government aircraft to defined official purposes: restricting travel on such aircraft, requiring special review of such travel on government aircraft by senior officials or non-federal travelers under certain circumstances, and codifies policies for reimbursement for the use of government aircraft. The transportation of passengers or cargo on Forest Service aircraft shall be limited in accordance with these Regulations.

[FSH 6509.33 301 Federal Travel Regulation](#) requires that all employees have a travel authorization for any official travel. Each instance of administrative use of a Forest Service aircraft to transport passengers must be justified, documented, and approved, and as such, will comply with the requirements contained in [FSM 5711.3](#). All documents pertaining to these flights must be maintained by Dispatch and on file for two years.

Regional Supplement:

Forest Supplement:

3.14 Dispatching

General

All flights (other than scheduled commercial air carrier flights) will be arranged by qualified aviation dispatchers and/or appropriate aviation manager and approved at the appropriate management level.

Administrative Use Flight Requests

Reference the Forest Service [Administrative Use of Aircraft Desk Reference](#).

Mission Flight Requests

All flight requests for mission flights shall follow the [National Mob Guide, Chapter 20](#).

Non-Incident Related Flight Requests

Follow local procedures.

Regional Supplement:

Forest Supplement:

3.15 Flight Use Reporting

Forest Service Aviation Business System (ABS) and Aviation Management Information Systems (AMIS)

Flight time, daily availability, and other authorized charges or deductions shall be recorded on a Flight Use Report in [Aviation Business System \(ABS\) \(FSM 5717.1\)](#). The data shall be entered and reviewed by the Government and the Contractor's Representative.

Working Capital Fund (WCF) aircraft use is entered into the [Aviation Management Information System \(AMIS\)](#) until ABS can accept WCF use.

For Administrative Use flight reporting reference the Forest Service [Administrative Use of Aircraft Desk Reference](#).

Office of Aviation Services (OAS) Aviation Management Systems (AMS)

All Bureau of Land Management (BLM) fleet aircraft and Department of Interior (DOI) contracted aircraft will utilize the OAS Aviation Management System (AMS) web based flight reporting system. The AMS application will become available at <http://ams.nbc.gov>.

Regional Supplement:

Forest Supplement:

3.16 Coding and Funding of Contract, Fleet, Severity Aircraft Availability

RESERVED

Regional Supplement:

Forest Supplement:

3.17 Working Capital Fund (WCF) (Fleet Aircraft)

The purpose of the WCF is to provide a sustainable funding mechanism for the operation and replacement of agency owned aircraft that support fire suppression and non-fire aviation activities. WCF aircraft are subject to the same regulations regarding capitalization, decapitalization, and depreciation as other WCF non-expendable personal property.

The Working Capital Fund Accounting Operations Handbook, [FSH 6509.11f](#) provides greater detail on how to accomplish day-to-day management, operations, and tasks, and what the WCF Aircraft User Guide will provide more aircraft specific information. Additionally, for more information regarding WCF fleet aircraft, refer to [FSM 5713.1](#).

Regional Supplement:

Forest Supplement:

3.18 Federal Excess Personal Property (FEPP)

The FEPP program refers to Forest Service owned property that is on loan to State Foresters for the purpose of wildland and rural firefighting. Once acquired by the Forest Service, it is loaned to State and local cooperators for firefighting purposes. Approximately 70% of FEPP is sub-loaned to local fire departments. For policy guidance regarding FEPP, refer to [FSH 3109.12](#) (aviation specific [FSH 3109.14, Chapter 40](#)), the [FEPP Desk Guide, Chapter 40](#).

The RAO may:

- Review all State aviation operations plans for compliance with Forest Service and State excess property direction.
- Help establish minimum standards for pilot qualifications and maintenance for excess property aircraft.
- Coordinate and/or establish an approved source of parts for excess property aircraft, such as the Department of Defense (DoD).
- Review State security risk assessments and mitigation plans.
- Review all acquisition documents prior to transfer of aircraft.

Regional Supplement:

Forest Supplement:

3.19 Financial Business Management System (FMBS)

RESERVED

Regional Supplement:

Forest Supplement:

3.20 Program Reviews

RESERVED

Regional Supplement:

Forest Supplement:

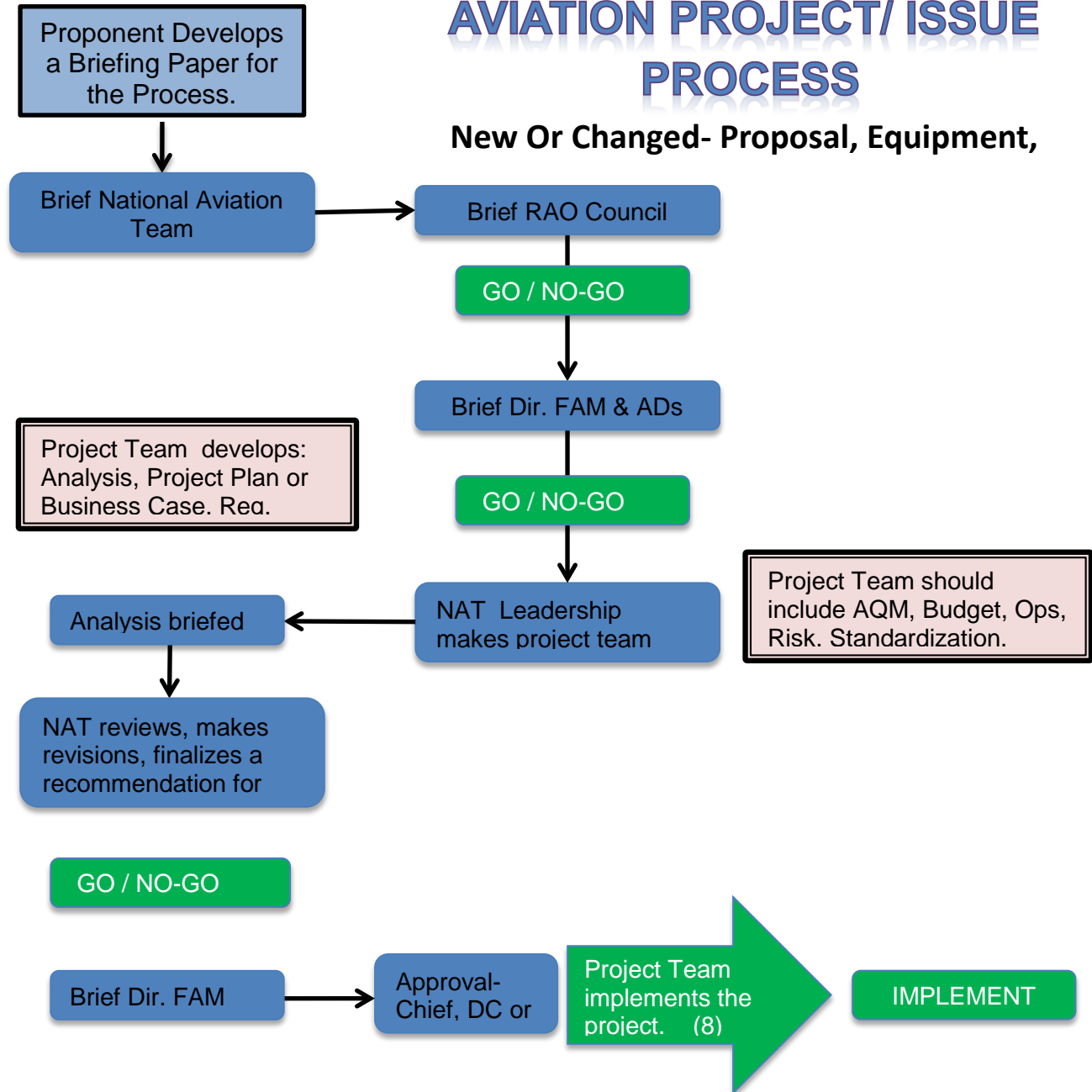
3.21 New Program Requests

1. If there is a request for:
 - 1.1. New equipment, e.g., aircraft, parachute, etc.
 - 1.2. New contractor contract change, e.g., VLAT, LFS Helicopter, etc.
 - 1.3. New agreement or MOUs.
 - 1.4. New process or changed process, e.g., rappel standardization, RADS, etc.
 - 1.5. Deviation from standards, e.g., LEI exemption, etc.
 - 1.6. New or changed policy, e.g., doctrinal policy changes, 100 hr, turbine single engine, etc.
 - 1.7. New or changed procedure, e.g., rappel procedures.
2. Proponent develops a Briefing Paper (BP) for the process that describes:
 - 2.1. Topic
 - 2.2. Issue
 - 2.3. Background
 - 2.4. Recommendation, including options and costs
 - 2.5. Key Points
3. Brief the National Aviation Team (NAT). The Assistant Director, Aviation or NAT Staff includes the BP on the agenda:
 - 3.1. Initiate brief discussion and decision.
 - 3.1.1. Decision to continue with the proposal and develop an analysis team.
 - 3.1.2. Decision to develop or gather more information and bring the proposal back to a later meeting for a Go/No Go decision.
 - 3.1.3. No Go decision will end the proposal.
 - 3.1.4. Notify the proponent of the decision.
4. Brief the RAO and Aviation Safety Council. The Assistant Director, Aviation, or NAT Staff includes the BP on the agenda:
 - 4.1. Initiate brief discussion and decision.
 - 4.2. Decision to develop or gather more information and bring the proposal back to a later meeting for a Go/No Go decision.
 - 4.3. Go/No Go decision to continue with the proposal and develop an Analysis Team or not.
5. Brief the Director of Fire and Aviation Management and the Assistant Directors. The Assistant Director, Aviation includes the BP on the agenda:
 - 5.1. Initiate brief discussion and decision.
 - 5.2. Decision to develop or gather more information and bring the proposal back to a later meeting for a Go/No Go decision.
 - 5.3. Go/No Go decision to continue with the proposal and develop an Analysis Team or not.
6. Develop a Project Team:
 - 6.1. Gather Subject Matter Experts (SMEs) specific to the project, i.e.
 - 6.1.1. Aviation Operations
 - 6.1.2. Aviation Safety
 - 6.1.3. Airworthiness
 - 6.1.4. Standardization
 - 6.1.5. Budget

- 6.1.6. AQM
- 6.1.7. Fire Operations
- 7. Identify and inform stakeholders
 - 7.1. This process should continue throughout Steps 3 and 6.
- 8. Develop a Project Implementation Plan outlining the steps to plan and implement a project and may include:
 - 8.1. Business Case
 - 8.2. Requirements Analysis
 - 8.3. Process Change Plan
 - 8.4. Acquisition Plan
 - 8.5. Communication strategy
 - 8.6. Official documentation
 - 8.7. Action Plan Timeline
 - 8.8. Risk Assessment (safety, business, and financial)
 - 8.9. Follow-up and review timeline and plan
 - 8.10. Approval from the Director of FAM or Line Officer approval – Chief or Deputy Chief
- 9. Implement Project

AVIATION PROJECT/ ISSUE PROCESS

New Or Changed- Proposal, Equipment,



4.0 Aviation Safety Management Systems

4.1 General

Safety is the state in which the possibility of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through continuing processes of hazard identification and risk management. *“It (safety) must be a core value of our culture, ingrained in the character of every employee. As an agency, we must endeavor to place the safety of our co-workers and ourselves above all else. This obligation requires integrity, trust, and leadership: the integrity of every employee to adhere to Agency standards, the trust in our leaders to place safety as the first priority, and leadership at all levels to provide a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal”* (Chief’s Safety Policy, August 27, 2009). This commitment to safety will be reflected as doctrine within aviation safety management. The adoption of [\(SMS\)](#) continues the application of Forest Service Doctrine. SMS is not a safety program; rather it is a system which aligns, assesses, and organizes an organization’s existing safety processes around the concept of system safety. SMS incorporates a proactive approach using hazard identification and risk management to achieve accident prevention.

Regional Supplement:

Forest Supplement:

4.2 Safety Management Systems (SMS)

SMS offers a complimentary solution based on structuring the existing rules and continuous review of the efficacy of those rules. Thus, the system ensures that guidance and regulation meet the original intent and that they have no unforeseen adverse side effects. SMS can be considered as functioning like a filing system, which structures the organization’s existing safety initiatives and provides a review process for how well those initiatives function. SMS is divided into four components: Policy, Risk Management, Assurance, and Promotion.

Regional Supplement:

Forest Supplement:

4.3 Policy

SMS is a critical element of management responsibility in determining the agency’s safety policy and SMS also defines how the agency intends to manage safety as an organizational core function.

- Policy guides aviation safety doctrine, philosophy, principles and practices.
- Policy provides framework for aviation plans ([Refer to 3.3 Aviation Plans](#)).
- Policy assists in the development of local standard operating procedures.
- Policy will foster and promote doctrinal principles and safety management systems within the Regions.

Regional Supplement:

Forest Supplement:

4.4 Risk Management

To provide structure to control risk in operations, a formal system of hazard identification and safety risk management is essential. The risk management process is designed to manage risk to acceptable levels by the identification, assessment, and prioritization of risks followed by coordinated application of resources to minimize, monitor, and control the probability and/or impact of undesirable events.

The agency:

- Will define a process for risk acceptance that defines acceptable and unacceptable levels of safety risk; establishes descriptions for severity levels, and likelihood levels.
- Will define specific levels of management that can make safety risk acceptance decisions.
- Will define acceptable risk for hazards that will exist in the short-term while safety risk control/mitigation plans are developed and executed.
- Will establish feedback loops between assurance functions to evaluate the effectiveness of safety risk controls.

There are necessary steps in the Risk Management Process.

- Define Objectives (i.e., Strategic program analysis, change management, accident action plan, other).
- System Descriptions: Identify each system-component that contributes to the mission.

Risk assessment is a step in the risk management process. Risk assessment is the determination of hazards associated with a situation or activity.

There are necessary steps in the risk assessment process as outlined in the [FS Aviation Safety Management System Guide](#):

1. Define Objectives (i.e., System and task analysis).
2. System Descriptions: Identify each system – component that contributes to the mission. Consider change management in systems.
3. Hazard Identification: Brainstorm all possible failures, threats, and danger points.
4. Risk Analysis: Disassemble the hazard to identify outcomes, impacts of a hazardous event, and degree of exposure to risk. (Ask the question: If this hazard exists, then what happens?)
5. Risk Assessment: Evaluate the combined effects of the potential for injury, damage, fatality, etc. based upon severity and likelihood of an event occurring.
6. Decision Making: Determine mitigations needed, conduct cost/benefit analysis, develop an action plan, and implement controls. (This is risk management).
7. Validation of Control: Monitor controls and supervise operations to determine if controls are effective.

Risk assessment can be divided into three levels:

- Time Critical. This method of risk management is an “on-the-run” mental or verbal review of the situation using the Operational Risk Management (ORM) process without necessarily recording the information. Many of the skills used in this context are applicable to normal mission where deliberate risk management has occurred and crews must manage risk in a dynamic situation. Note that “time critical” does not mean “hasty” or “uninformed.”
- Deliberate. This ORM method is used with adequate planning time and may involve more than one system at its source. It involves a systems identification, hazard identification, risk assessment/analysis, consideration of control options and risk decision making, implementation of controls, and supervision. This method will involve documentation of the process and actions. Examples of the tools in use for ORM are project aviation safety plans (PASP) and job hazard analysis (JHA).
- Strategic/In-Depth. Strategic Risk Management (SRM) is conducted at the highest levels of the organization and is typically applied to “systems of systems” type complexity, and requires more sophisticated techniques and professional reviews. A system or task description should completely explain the interactions among the software, hardware, environment, and liveware

(e.g. SHEL model) that make up the system in sufficient detail to identify hazards and perform risk analysis.

This method should be used in instances where an entire program-wide assessment is deemed necessary; new technology or a change in process is being proposed; or when risks appear consistently high in a specific functional area. The strategic process produces a permanent record of findings and decisions used for long term planning, organizational decision-making and as authoritative training resources.

Note: The SRM process shall not preclude employees or contractors from taking interim immediate action to eliminate or mitigate existing safety risk when and where it is recognized that urgent action is required.

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4.5 Assurance

The safety assurance component involves processes for quality control, mishap investigation, and program reviews.

- Provide aviation safety oversight and review through active field presence and encourage a reporting culture between management and aviation.
- Monitor established standards and procedures and make corrections as needed.
- Monitor accident and incident trends, and implement appropriate prevention action.
- Report accidents and incidents with potential in accordance with the local emergency response plan.
- Conduct accident and incident investigations.
- Provide guidance, coordination, and monitoring of safety evaluations conducted by the Regional aviation staff and Forest/Unit Aviation Officers.
- Provide assistance in aviation activities to ensure best practices and procedures are understood.
- Promote and provide corrective action on [SAFECOM](#) reports, develop trend analysis and communicate lessons learned.
- Review aviation accident and incident reports and follow-up on action items.

QA techniques can be used to provide a structured process for achieving objectives. Forest Service efforts to date have concentrated on the development and implementation of comprehensive doctrine/policy revision, risk management processes, SMS promotion and training.

All effort should be made to focus corrective action as specifically as possible.

4.5.1 Aviation Safety and Technical Assistance Team (ASTAT)

The Forest Service provides representation on ASTAT to support aviation resources and personnel operating in the field during periods of increased aviation operations. The team's purpose is to assist and review helicopter and/or fixed-wing operations on ongoing wildland fires and to provide safety assurance through communication from the field to Fire and Aviation Management leadership.

Reference [Forest Service Aviation Safety Management System Guide](#) for ASTAT guidance.

4.5.2 Aviation Safety Communiqué – SAFECOM

[SAFECOM](#)s fulfill the Aviation Mishap Information System (AMIS) requirements for aviation mishap reporting for the Forest Service. The [SAFECOM](#) is to report any condition, observance, act, maintenance problem, or circumstance which has the potential to cause an aviation-related mishap ([FSM 5720.46](#)). The [SAFECOM](#) system is not intended for initiating punitive actions. Submitting a [SAFECOM](#) is not a substitute for “on-the-spot” correction(s) to a safety concern. It is a tool used to identify, document, track and correct safety related issues. This form is located on the [SAFECOM](#) web page, [Interagency SAFECOM System](#). All personnel involved in aviation activities are encouraged to submit [SAFECOM](#)s when they feel such action is warranted.

4.5.3 Aircraft Accident Investigation Process

The [National Transportation Safety Board \(NTSB\)](#) is responsible for investigating all Forest Service aviation accidents. The Forest Service investigation team additionally conducts an investigation of Forest Service management and policy issues following the [Accident Investigation Guide \(Edition 2005\)](#) concurrent with the [NTSB](#) investigation. On completion of the accident investigation, the draft report will be reviewed by an Accident Review Board (ARB). The chairperson forwards the Final Investigation Report, the Draft Accident Prevention Action Plan, and transmittal letter to the Chief’s office for approval.

4.5.4 Forest Service Strategic Risk Assessment Close-Out Process

Once the Strategic Risk Assessment has been completed, and the Assistant Director, Aviation and Assistant Director, Risk Management will deliver the final product to the Director, Fire and Aviation Management. The Director will provide direction for the risk assessment report to be reviewed. The Strategic Risk Assessment Close-out Working Group (SRACOW) will establish a Subject Matter Expert (SME) group of no more than five SMEs. The SME group will be given direction, parameters and timelines to review the report; identify mitigations that are one time effort and those that are on-going; assess individual mitigation’s effectiveness and implementation cost and to develop a Quality Assurance (QA) checklist for long-range monitoring. The SME group will provide the SRACOW with these products in the established timelines. The SRACOW will review and either accepts the SME products or a back and forth coordination will begin to develop acceptable products. Once the SRACOW agrees on an acceptable QA checklist, the SRACOW will provide the Assistant Director, Aviation and Assistant Director, Risk Management with documentation on the completion of the project. The Assistant Directors will deliver the final product to the Director of Fire and Aviation for Deputy Chief, State and Private Forestry signature. Strategic Risk Assessments should be closed out and formally completed no later than one year from the date of tasking to the SRACOW. A bulleted representation of the process is below:

- Aviation Strategic Risk Assessment completed and assigned to the SRACOW with the expectation of being formally closed out within one year. (Director FAM)
- Develop SME Group and provide clear direction of assigned tasks. (SRACOW)
 - Identify on-going and one time mitigations and assess their viability. (SME)
 - Develop QA Checklist. (SME)
 - Provide products back to SRACOW. (SME)
- Review, validate and either accept or return SME products. (SRACOW)
 - Pass Back Process if needed.
- Once acceptable products are developed, formally complete and close out the risk assessment through documentation to the Assistant Director, Aviation and the Assistant Director, Risk Management. (SRACOW)

4.5.5 Project Aviation Safety Planning (PASP)

Accident prevention is paramount when planning individual aviation operations. PASPs are not required for incident aviation operations.

Prior to commencing non-emergency operations involving the use of aircraft, the Regional Directors, Area Director, Forest Supervisors, and Station Directors shall develop and document a Project Aviation Plan including a PASP that will be reviewed by the RAO ([FSM 5711.04b](#)). An aviation safety manager is also recommended to be included in the review process. An appropriate line officer shall approve all Aviation Plans per direction in [FSM 5711.04](#).

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4.6 Promotion

The organization must promote safety as a core value with practices that support a positive safety culture. Safety promotion can be accomplished through safety awards, education, and communication.

- Training
- Communication
- [Lessons Learned Website](#)
- Reporting and Feedback
- Safety and Mishap Information
- Safety Awards

The desired positive Safety Culture is informed, flexible, learning, just and is a reporting culture that captures employee operational knowledge and experience. The end result of this cultural shift is to achieve the status of a High Reliability Organization (HRO).

4.6.1 Human Factors

Human error is the single area, which if possible to eliminate or reduce, would provide the greatest benefit in accident prevention. Human behavior is so complex that it is unrealistic to think that human error can be eliminated. When fully implemented, SMS provides and promotes a positive Safety Culture which can reduce the impact of human error.

4.6.2 Aviation Safety Awards Program

Aviation Safety Awards are a positive part of the aviation program and are provided to all levels with the Forest Service organization. National awards are given following the guidelines in [FSM 5724](#) for pilots and employees.

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4.7 National Fire and Aviation Operations Alert System

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5.0 Aviation Operations

5.1 General

It is the responsibility of each employee, cooperator, and contractor to conduct aviation operations that have been approved by management, planned properly, utilizes the correct equipment, use qualified personnel, and insure that the risk has been mitigated to an acceptable level. Forest Service employees are often challenged by working in very high-risk and dynamic environments that are not always predictable. This responsibility can only be realized through participation of every employee. Safety is the first priority and leadership at all levels must foster a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal. The four components of SMS (Policy, Risk Management, Assurance, and Promotion) are critical to the success of safe operations.

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5.2 Operational Guides and Handbook

A list of all of the Forest Service aviation policy documents can be found in the [FSM 5703](#).

Reference:

- [FSM 5700 Aviation Management](#)
- [Title 14 CFR](#)
- [FSH 5109.17 Fire and Aviation Management Qualifications Handbook](#)
- [FSH 5709.16 Flight Operations](#)
- [FSH 6709.11 Health & Safety Code Handbook](#)
- [FSM 5309.11 Chapter 50 Law Enforcement Manual](#)
- [Applicable Federal Aviation Regulations \(FARs\)](#)
- [Office of Management and Budget \(OMB\) Circulars A-76, A-123, A-126](#)
- [GSA Federal Property Management Regulation \(FPMR\) 101-37](#)
- [Interagency Standards for Fire and Fire Aviation Operations](#)
- [USFS Aviation Safety Management System \(SMS\) Guide](#)
- [WCF Fleet Aircraft Replacement Plan](#)
- [Aviation Risk Management Workbook](#)
- Forest Service (FS) National Law Enforcement and Investigations (LEI) Short-Haul and Hoist (S-H/H) Guide
- Forest Service [Administrative Use of Aircraft Desk Reference](#)

Interagency Aviation Operational Guides:

- Aircraft Inspection Guide
- [Forest Service Accident Investigation Guide](#)
- Helicopter Flight Evaluation Guide (HFEG)
- [Interagency Aviation Mishap Response Guide and Checklist](#)
- [Interagency Aviation Training Guide \(IAT\)](#)
- [Interagency Smokejumper Operations Guide \(ISMOG\)](#)
- [Interagency Smokejumper Pilots Operations Guide \(ISPOG\)](#)
- [National Interagency Mobilization Guide](#)
- [Interagency Helicopter Operations Guide \(IHOG\)](#)

- [Interagency Airspace Coordination Guide \(IAACG\)](#)
- [Interagency Aviation Hazardous Materials Guide](#)
- [Interagency Aerial Ignition Guide \(IAIG\)](#)
- [Interagency Helicopter Rappel Guide \(IHRG\)](#)
- [Interagency Aerial Supervision Guide \(IASG\)](#)
- [Interagency Airtanker Base Operations Guide \(IABOG\)](#)
- [Interagency Single Engine Air Tanker Operations Guide \(ISOG\)](#)
- [Professional Helicopter Pilot Guide](#)
- [NASF Cooperators Aviation Standards for Interagency Fire](#)
- Interagency Cooperator Standards Guide
- Airplane Pilot Practical Test Standards
- Helicopter Pilot Practical Test Standards

Handbooks:

- [Interagency Aviation Transport of Hazardous Materials Handbook](#)
- [Military Use Handbook](#)

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5.3 Public/Civil Aircraft Operations

Forest Service aviation activities include both “civil” and “public” operations. Civil aircraft operations shall comply with [FSM 5703.32](#). Public aircraft operations shall comply with [FSM 5703.31](#).

Civil Aircraft

All Forest Service aircraft operations are civil unless specifically designated public. All aircraft other than public aircraft are considered civil aircraft ([FAR1.1](#)).

Public Aircraft

Public aircraft operations shall be the exception not the rule. The definition for Public Aircraft can be found in the [FSM 5705](#). The Forest Service will comply with all [Federal Aviation Regulations \(FAR\)](#) in the operation and maintenance of public aircraft with the few exceptions outlined in [FSM 5714](#).

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5.4 Employees on Non-Forest Service Aircraft

All agency employees will comply with Forest Service aviation policies when performing agency employment-related duties on board any organization’s aircraft and/or aircraft operated under any other organization’s operational control. Employees shall be mindful of policy and the appropriate approval level for any deviation from policy. These policies include, but are not limited to: approved aircraft and pilot (carding or letter of approval), PASP, flight following, PPE, and appropriate management.

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5.5 Emergency Exception to Policy

Federal employees who are involved in an event in which there clearly exists an imminent threat to human life, and there is insufficient time to utilize approved methods, may deviate from policy to the extent necessary to preserve life.

The following provisions and follow-up actions apply:

- Personnel involved in the decision making associated with deviating from policy must weigh the risks versus benefit, must have an adequate understanding and knowledge of the mission risk, or contact an individual that does if practical.
- Any deviations shall be documented on a [SAFECOM](#).
- Requires Line Officer (District Ranger, Forest Supervisor, etc.) to authorize each flight. Refer to [FSM 5713.53](#).

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5.6 Flight Planning

Point-to-Point

Point-to-Point flights will be tracked by either an FAA – VFR (Visual Flight Rules), IFR (Instrument Flight Rules) Flight Plan, or agency flight plan. Minimally, there must be notification to Dispatch Centers upon departure and arrival.

FAA Flight Plans

FAA Flight Plans are filed by the pilot, opened in flight upon departure, and closed by the pilot with FAA Air Traffic Control (ATC) or Flight Service upon arrival.

Agency Flight Plans

Agency flight plans for point-to-point flights are documented on a Flight Request/Flight Schedule form. The procedures for accomplishing agency flight tracking are documented in detail in the [National and Geographic Area Mobilization Guides](#).

Mission flights in single engine aircraft may not be conducted any earlier than 30 minutes before official sunrise or later than 30 minutes past official sunset. Mission flights may only be conducted when weather and visibility conditions meet or exceed the VFR weather minimums specified in [14 CFR 91.155](#).

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5.7 Flight Following

Mission Flight Following

Automated Flight Following (AFF) is required by [FSH5709.16, Chapter 33.1](#) and the preferred method of agency flight following. If the aircraft and flight following office have AFF capability, it shall be utilized. Mission flight following is accomplished by flight crews and dispatchers using AFF and/or radio systems or by personnel using radio systems on the scene of an incident/project where the aircraft is operating.

[Automated Flight Following \(AFF\)](#) does not reduce or eliminate the requirement for FM radio capability and radio communication. Reference the [FSM5709.16, Chapter 33](#) and [National Interagency Mobilization Guide, Chapter 20](#) Flight Following Requirements and Procedures.

The method of flight following for Fire incidents is documented on an Aircraft Resource order or in a Dispatch Center's Mobilization/Operating Guide. The method for flight following non-fire resource missions will be documented in a Project Aviation Safety Plan (PASP) and/or Flight Request/Flight Schedule form.

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5.8 Radio Frequency Management/Communications

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Do not use any frequency without proper authorization from the authorized radio frequency management personnel at the local, state, regional or national level.

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5.9 Latitude and Longitude Formats

In order to reduce the possibility of dispatching of aerial resources to incorrect locations, ensure that all units identify the format in which latitude and longitude is being communicated. Latitude and longitude may be communicated in three formats:

A. Degrees Decimal Degree (seldom used)	48.3612°N 114.0812°W
B. Degrees Decimal Minutes (aka) Degrees Minutes Decimal Minutes or Degrees Minutes Tenths) <ul style="list-style-type: none">• Aircraft mounted GPS units• Contracts• FAA documents such as airport guides	48°36.12'N 114°08.12'W
C. Degrees Minutes Seconds (many maps) <ul style="list-style-type: none">• ROSS• National Mobilization Guide• TFR requests forms	48°36'12"N 114°08'12"W

There is also a format specific to the [Interagency National Mobilization Guide](#), for requesting TFRs, which is an exception to the above formats. An example would be 483612N/1140812W (uses no punctuation at all with degrees, minutes and seconds).

Reference the [Latitude/Longitude Information for GPS Navigation Information Bulletin](#) for more information.

5.10 Overdue or Missing Aircraft

An aircraft is considered “overdue” when it fails to arrive within 30 minutes after the Estimated Time of Arrival (ETA) and cannot be located. An aircraft is considered “missing” when its fuel duration has been exceeded, it has been reported as “overdue” to the FAA and the FAA has completed an administrative search for the aircraft without success. If an aircraft is missing, overdue, or downed, initiate the [Interagency Mishap Response Guide and Checklist](#).

Regional Supplement:

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5.11 Mishap Response

Forest Service local units shall establish procedures in an Emergency Response Plan to, [FSM5720.48](#):

- Coordinate and plan the response to aviation accidents and incidents; and should
- Conduct periodic exercises of mishap response plans.

The Emergency Response Plan is specific to each unit and shall be available in all dispatch offices. The Emergency Response Plan must be updated annually at a minimum.

Regional Supplement:

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5.12 Passengers

A passenger is any person aboard an aircraft, when traveling on official Forest Service business, who does not perform the function of a flight crewmember or air crewmember.

Passengers will:

- Use appropriate personal protective equipment for the type of flights being conducted
- Report aviation incidents, operations deviating from policy, potential incidents
- Ensure personal safety as well as safety for others involved in the flight.

Agency Employees off Duty:

Federal employees cannot utilize annual leave/Leave without Pay (LWOP) or “volunteer” in order to circumvent agency policy. If any aspect of the employee’s activity is related to their official duties, they are conducting agency business, regardless of their pay or leave status.

Refer to the regulations regarding off-duty activities in accordance with the Standards of Ethical Conduct for Employees of the Executive Branch ([5 CFR Part 2635.802-803](#))

Volunteers

Volunteers when traveling on official business are official passengers, within the terms of [FSH 6509.33](#), [Federal Travel Regulations 301-1](#). A [Day Trip Authorization \(FS-5700-12\)](#) shall be filled out for each flight listing each volunteer. During fire mission flights, the Incident Commander with Delegation of Authority from the unit line officer or the local line officer is the appropriate level of approval ([FSM 5716.44- Exhibit 01](#)).

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5.13 Transportation of Hazardous Materials

Transportation of hazardous materials aboard agency contracted aircraft must meet the requirements set forth in the [Interagency Aviation Transport of Hazardous Materials Guide](#). When hazardous materials are transported on agency aircraft, the [DOT SP-9198](#) shall be onboard each aircraft.

Hazardous materials transported aboard commercial aircraft shall fall under [49 CFR](#). Employee shall check with commercial carrier prior to traveling. Some commercial carriers may not permit hazardous materials.

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5.14 Invasive Species Control

Aquatic invasive species are easily transported in a variety of ways (e.g., helicopter buckets, fixed tank helicopters and SEATs utilizing open water sources, engines and tenders, and other water handling equipment). Agency personnel should become knowledgeable in the preventive measures associated with the prevention of the spread of aquatic plants and invertebrates. Aviation managers should consult with local unit representatives to acquire information associated with: contaminated water sources, approved water sources, cleaning equipment exposed to contaminated water requirements, and other pertinent information.

In addition, the Equipment Technology Committee under the National Wildfire Coordinating Group established an Invasive Species Subcommittee to focus on developing guidance for use in the interagency fire community. Current information is available at http://www.nwcg.gov/branches/et/etc/subcommittees/invasive_species/invasive_species-subcommittee.htm specific to this subcommittee.

Work is underway to develop additional guidance and procedures in the cleaning of equipment that has been exposed to aquatic invasive. Current information concerning cleaning solutions can be found at this web site: <http://www.fs.fed.us/rm/fire/wfcs/documents/watercon.pdf>

Many web sites exist containing information on invasive aquatic species. The following is not an all inclusive list but will provide the user with specifics about aquatic invasive species, guidance surrounding the prevention of spreading invasive, as well as equipment cleaning information:

Forest Service Region 4 Fire Operations Guidance for Aquatic Invasive Species

- <http://www.fs.fed.us/r4/resources/aquatic/guidelines/index.shtml>

USDA National Invasive Species Information Center Resource Library

- <http://www.invasivespeciesinfo.gov/resources/orgstate.shtml>

Forest Service Technology & Development Water-Source Toolkit

- <http://www.fs.fed.us/t-d/programs/wsa/watertoolkit.htm>

Environmental Protection Agency Useful Links to Invasive Species Information

- http://www.epa.gov/owow/invasive_species/links.html

Forest Service Invasive Species Program

- <http://www.fs.fed.us/invasivespecies/index.shtml>
- <http://www.fs.fed.us/invasivespecies/relatedlinks.shtml>

Forest Service Region 4 Invasive Species Homepage

- <http://www.fs.fed.us/r4/resources/invasives/>

US Fish and Wildlife Service Western Regional Panel on Aquatic Nuisance Species Homepage

- <http://www.fws.gov/answest/default.html>

Global Invasive Species Database

- <http://www.issg.org/database/welcome/>

California Department of Fish and Game Invasive Species

- <http://www.dfg.ca.gov/invasives/>

USDA National Invasive Species Information Center Homepage

- <http://www.invasivespeciesinfo.gov/>

Aquatic Nuisance Species Task Force Homepage

- <http://anstaskforce.gov/default.php>

US Fish and Wildlife Service Invasive Species Homepage

- <http://www.fws.gov/invasives/>

US Geological Survey Non-indigenous Aquatic Species Homepage

- <http://nas.er.usgs.gov/>

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5.15 Fire Chemicals and Aerial Application Policy Near Waterways

For operational guidelines on use of fire chemicals, refer to [Implementation Guidance for the Nationwide Aerial Application of Fire Retardants on National Forest Systems Lands](#). For aerial application of pesticides near “waters of the United States”, refer to Environmental Protection Agency’s National Pesticide Discharge Elimination System (NPDES) <http://cfpub.epa.gov/npdes/> and consult your USFS Regional Pesticide Coordinator for NPDES permitting information.

Interagency policy only allows the use of a product that is qualified and approved for intended use. A Qualified Products List (QPL) is published for each wildland fire chemical type and maintained on the Wildland Fire Chemical Systems (WFCS) web site: <http://www.fs.fed.us/rm/fire/wfcs/index.htm>.

Personnel involved in handling, mixing, and applying chemicals or solutions shall be trained in proper safe handling procedures and use the personal protective equipment recommend on the product label and Material Safety Data Sheet (MSDS). The MSDSs for all approved fire chemicals can be found on the WFSC web site. MSDSs for pesticides or other materials must be available on site for duration of project. One resource for searching MSDSs is <http://www.msds-online.com/msds-search/>.

Airtanker bases shall have appropriate spill containment facilities (and equipment) in place.

Products must be blended or mixed at the proper ratio by approved methods prior to being loaded into the aircraft. Inaccurate mixing of fire chemicals may negate the suppressant or retarding properties, which is not cost effective and may be a safety factor.

Avoid aerial application of wildland fire chemicals within 300 feet of waterways. Use form NIFC 9210-18 (available on-line at http://www.fs.fed.us/rm/fire/wfcs/documents/FireChemReportForm_2009_031009.doc) for reporting any aerial application of retardant, foam, or water enhancer (gel) in a waterway or within the 300 foot buffer

area; or when a transportation accident results in a spill of wildland fire chemical into a waterway or within the 300 foot buffer; or when ground resources apply a wildland fire chemical that enters, or has potential to enter a waterway.

Retardant Avoidance Areas

Additionally, aerial retardant drops are not allowed in mapped avoidance areas for threatened, endangered, proposed, candidate or sensitive species except in cases where human life or public safety is threatened and retardant within an avoidance area could be reasonably expected to alleviate that threat. Maps identifying all retardant avoidance areas (including waterways) can be found at: <http://www.fs.fed.us/fire/retardant/maps.html>. These maps shall be provided to dispatch centers, incident commanders and incident aviation resources.

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5.16 Search and Rescue (SAR)

Refer to the [FSM 5713.53](#) and [FSM 1599](#) regarding search and rescue. Search and rescue operations could lead to actions in conflict with policy. Refer to section [5.5 Emergency Exemptions to Policy](#).

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Forest Supplement:

5.17 Large Airtanker Operations

Large Airtankers are a national resource and their primary mission is initial attack. Geographic Areas administering these aircraft will make them available for wildland fire assignments when ordered by the National Interagency Coordination Center. In addition to federally contracted airtankers, MAFFS (military) and cooperator aircraft may be utilized to supplement the federal fleet through established agreements.

Operational considerations concerning Large Airtankers can be referenced in the [Interagency Aerial Supervision Guide \(IASG\)](#).

5.17.1 Very Large Airtanker (VLAT) Operations

VLATs should be used primarily for large fire support. In 2009, the FS contracted with the National Aviation and Space Administration (NASA) to conduct a VLAT Operational Test and Evaluation. NASA recommended several operational parameters including, VLAT use should be in “level or gently rolling terrain” greater than 300 feet above ground level, use “in very steep or rugged terrain is not recommended” and they should be “used to supplement other aerial retardant delivery platforms rather than replace them.” VLATs should be used accordingly.

5.17.2 Airtanker Base Personnel

The airtanker base manager supervises ground operations in accordance with the Interagency Airtanker Base Operations Guide (IATBOG).

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5.18 SEAT Operations

SEATs primary mission is initial attack. Mobilization is managed by Dispatch Centers with support by the Bureau of Land Management's National SEAT Coordinator and BLM State Aviation Managers. Operational considerations concerning SEATs can be referenced in the [Interagency SEAT Operations Guide \(ISOG\)](#) and the [Interagency Aerial Supervision Guide \(IASG\)](#).

SEAT Manager (SEMG) responsibilities are outlined in the [ISOG](#), and their training and currency requirements are contained in [NWCG PMS 310-1](#).

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5.19 Aerial Supervision Operations

Aerial Supervision Module aircraft are national resources. These air supervision resources conduct operations in accordance with the [Interagency Aerial Supervision Guide \(IASG\)](#) and the policies and procedures prescribed in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#). Dispatch and ordering are accomplished in accordance with the Geographic Area and National Mobilization Guides.

Air Attack aircraft can be considered a local unit, incident, or geographic resource. Air tactical aircraft must meet the avionics typing requirements listed in the [Interagency Aerial Supervision Guide \(IASG\)](#) and the pilot must be carded to perform the air tactical mission.

5.19.1 Aerial Supervision Personnel

Personnel associated with aerial supervision will be trained to the standards in [FSH 5109.17](#) and the [Interagency Aerial Supervision Guide \(IASG\)](#). Training and qualification requirements for ASM crewmembers are defined in the [IASG](#). Individuals performing duties as an Air Tactical Supervisor (ATS) or Air Tactical Pilot (ATP) must be certified and authorized by the BLM or Forest Service National Aviation Operations Officer.

Air Tactical Group Supervisors (ATGS) responsibilities are outlined in the [IASG](#), and their training and currency requirements are contained in [FSH 5109.17](#). Personnel who are performing aerial reconnaissance and detection will not perform aerial supervision duties unless they are fully qualified as an ATGS.

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5.20 Helicopter Operations

All helicopter operations shall be accomplished in accordance with the [Interagency Helicopter Operations Guide \(IHOG\)](#), the Aerial Ignition Guide, and the aircraft contract.

The applicable Hover out of Ground Effect (HOGE) chart will be used for initial attack operations, first time into remote landing site, or when the pilot deems that environmental conditions warrant use of HOGE chart.

5.20.1 Helitack

Each unit hosting an exclusive-use helicopter is responsible for providing essential management, overhead, equipment, facilities and the resources necessary to fully support the helitack crew. Minimum crew staffing is contained in the [Interagency Standards for Fire and Fire Aviation Operations](#). Helicopter personnel responsibilities are outlined in the [IHOG](#), and their training and currency requirements are contained in [FSH 5109.17](#).

5.20.2 Rappel

Rappel activities will be conducted in compliance with the [Interagency Helicopter Rappel Guide](#).

5.20.3 Cargo Letdown

Cargo letdown will be conducted in compliance with the [Interagency Helicopter Rappel Guide](#).

5.20.4 Short-Haul and Hoist (Region 5 Law Enforcement and Investigations ONLY)

Short-Haul and Hoist operations are approved for Law Enforcement and Investigations only. Short-Haul and Hoist operations will be conducted in compliance with the [IHOG](#) and the Forest Service (FS) National Law Enforcement and Investigations (LEI) Short-Haul and Hoist (S-H/H) Guide.

5.20.5 Helicopter Screening and Evaluation Board

The Helicopter Screening and Evaluation Board (HSEB) will provide guidance for standardization when evaluating new interagency helicopters and related accessories.

5.21 Aerial Ignition Operations

Aerial ignition operations and projects are accomplished in accordance with the [Interagency Aerial Ignition Guide](#).

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5.22 Wild Horse & Burro Operations

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Regional Supplement:

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5.23 Aerial Capture, Eradication and Tagging of Animals (ACETA)

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Regional Supplement:

Forest Supplement:

5.24 Smokejumper Operations

Smokejumper dispatch and ordering are accomplished in accordance with the Geographic and National Mobilization Guides and [Interagency Smokejumper Operations Guide \(ISMOG\)](#).

5.24.1 Smokejumper Personnel

Smokejumpers: Smokejumper operations are performed according to the [Interagency Smokejumper Operations Guide \(ISMOG\)](#), and the policies and procedures prescribed in the [Interagency Standards for Fire and Aviation Operations Handbook](#).

Smokejumper Pilots: The [Interagency Smokejumper Pilot Operations Guide \(ISPOG\)](#) serves as policy for smokejumper pilots' qualifications, training and operations.

5.24.2 Smokejumper Aircraft

Smokejumper aircraft are evaluated and approved by the Smokejumper Aircraft Screening and Evaluation Board (SASEB). The SASEB will provide guidance for standardization when evaluating new smokejumper aircraft and related accessories.

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5.25 Light Fixed-Wing Operations

Fixed-wing dispatch, ordering, and operations are accomplished in accordance with the local geographic area and National Mobilization guides.

For all non-fire flights, the [IAT Guide](#) provides the training standards for fixed-wing flight managers (FWFM) in charge of point-to-point and FWFM Special-Use mission flights. A qualified FWFM shall be assigned to point-to-point flights and FWFM Special-Use for mission flights.

Low-level Flight Operations (Less than 500 feet AGL)

The only fixed-wing aircraft missions authorized are:

- Para-cargo.
- Aerial Supervision Module (ASM) and lead profile operations.
- Aerial retardant, water and foam application.
- Aerial Seeding/Spraying

Operational Procedures:

- A high-level recon will be made prior to low-level flight operations.
- All flights below 500 feet will be contained to the area of operation.
- PPE is required for all fixed-wing, low-level flights. Helmets are not required for multi-engine airtanker crews, smokejumper pilots and ASM flight/aircrew members.

5.25.1 Reconnaissance or Patrol Flights

The purpose of aerial reconnaissance or detection flights is to gather and relay information. In addition to detecting, mapping, and sizing up fires, this resource may be utilized to provide ground resources with intelligence, and provide recommendations to the appropriate individuals.

Only qualified Aerial Supervisors (ATGS, ASM, HLCO, and Lead/ATCO) are authorized to coordinate incident airspace operations. Flights with a "Recon, Detection, or Patrol" designation should communicate with tactical aircraft only to announce location, altitude, and to relay their departure direction and altitude from the incident.

5.25.2 Single Engine Instrument Meteorological Conditions and Night Flight

Reference the policy change for single engine instrument meteorological conditions and night flight policy, [Appendix 10.3](#).

5.26 Law Enforcement and Investigations (LEI) Operations

The LEI personnel shall follow the [FSH 5309.11, Chapter 50](#), [FSM 5700](#), and [FSH 5709.16](#) for all aviation operations.

Local LEI personnel that are required to utilize aircraft to support aviation operations should discuss all aspects of the operation with the FAO or UAO well in advance of operations.

All transport of hazardous materials during LEI operations shall follow the [Interagency Aviation Transport of Hazardous Materials](#) Guide.

5.26.1 Special Law Enforcement Aviation Projects

Occasionally there are “special” law enforcement aviation missions that are not covered in a standard PASP. If any proposed flights are not covered by an appropriately established aviation plan, then a PASP will be prepared. This includes the use of aviation resources for Flight Service Contracts. The responsible individual will prepare a PASP and submit the plan for review and approval. All LEI operations will have a PASP prior to commencing operations. Line officers shall be informed of law enforcement and investigator non-covert aviation activities within their area of responsibility.

5.26.2 LEI Training

LEI personnel involved with aviation activities shall receive and be current in required aviation training (NWCG and/or IAT) commensurate with the aviation position they will fill, prior to any aviation operations.

5.26.3 Civil Air Patrol (CAP)

The Civil Air Patrol (CAP) can transport Forest Service employees in accordance with the [WO Amendment 1534.12](#) MOU; however, there shall be written operating procedures established.

LEI personnel will utilize aircraft and pilots that have been approved for use by a letter of approval from the Regional Aviation officer. Not all CAP pilots and/or aircraft will be approved for use. Aircraft contracted for fire/resource operations are not mandated to participate in LEI operations. Aircraft companies must agree to participate in LEI operations. Missions outside of the scope of the contract require a contract modification.

Certain LEI operations could lead to actions in conflict with Forest Service policy; reference [Section 5.5 Emergency Exception to Policy](#).

5.26.4 Department of Homeland Security (DHS)

The Chief issued a letter ([Appendix 10.4](#)) that permits LEI employees on official duty to fly aboard DHS owned and operated aircraft while performing joint law enforcement operations and coordinating missions with DHS agencies.

5.26.5 LEI Personal Protective Equipment (PPE) During Tactical Operations

Follow the direction on the use of personal protective equipment (PPE) described in the [Interagency Helicopter Operations Guide \(IHOG\) \(NFES 1885\)](#). Approved PPE must be prescribed by the incident

commander, operations supervisor, or their designee per [FSM 5300](#). Law enforcement personnel are authorized to wear the following for special tactical operations, for emergency flights, or on flights that are short in duration:

- Battlefield dress uniform (BDU),
- Forest Service uniform, or
- Approved utility uniform.

5.26.6 Emergency Operations

The LEI personnel shall follow the [FSH 5309.11, Chapter 52.15 – Emergency Operations](#)
Regional Supplement:

Forest Supplement:

5.27 Unmanned Aerial Systems (UAS)

Unmanned Aerial Systems operating in the national airspace system are considered by the Federal Aviation Administration (FAA) as aircraft, regardless of size. Accordingly, any planned use (including through agreements), acquisition, contracting or leasing of UAS must be coordinated with the Forest Service Washington Office, Fire and Aviation Management, Assistant Director Aviation and the delegated Washington Office, Fire and Aviation Management, Technical Contact. Additionally, the appropriate Regional Aviation Officer (RAO) shall be included in any discussion about proposed UAS operations.

The FAA Unmanned Aircraft Program Office has developed the [Interim Operational Approval Guidance, 08-01](#), for UAS applications. Forest Service policy regarding UAS is located in [FSM 5713.7](#). Unmanned aircraft are to be considered the same as manned aircraft.

Any Forest Service leased, contracted, or owned UAS will require a Certificate of Authorization (COA) from the FAA before operating within the national airspace system. The COA request process is extensive and includes requirements similar to manned aircraft in terms of pilot training and currency, airworthiness approval, avionics, and operational restrictions.

Other agencies that have already completed the COA process will be considered Cooperator aircraft ([FSM 5710.35](#)). Military and cooperator aircraft approval shall meet the requirements in the [FSM 5713.43](#). UAS operated by the military or cooperators for the Forest Service missions are subject to the approval requirements in [FSM 5713.7](#).

Forest Service COA applications must be submitted by the Forest Service Washington Office, Fire and Aviation Management, Technical Contact. The FAA lead time is approximately 60 days. Changes to an existing COA can occur using the emergency COA process and at a minimum takes 24 to 48 hours.

Initial requirements to utilize an UAS:

- Coordinated with RAO and WO
- Complete a Risk Assessment utilizing [HJA-6 4/2009](#) to determine if an UAS is the most appropriate platform for the mission. If yes, then;
- Request COA
- Create a [Project Aviation Safety Plan \(PASP\)](#) that includes the mission requirements.

Leadership recognizes the high potential for UAS operations and the importance of the program. Since this is a new program, the FS intends to proceed cautiously.

Regional Supplement:

Forest Supplement:

5.28 Forest Health Protection (FHP) Operations

FHP utilizes light fixed and rotor wing aircraft to conduct aerial reconnaissance, aerial photography and aerial application. All FHP aviation operations should be coordinated with the appropriate Regional Aviation Officer. Dispatch, ordering, and operations are accomplished in accordance with the local geographic area and National Mobilization guides and the Interagency Helicopter Operations Guide (IHOG). The purpose of these operations is to gather information regarding forest health conditions and manage pests in accordance with [FSM 2100](#) and [FSM 3400](#).

For all non-fire flights, the [IAT Guide](#) provides minimum training standards for fixed-wing flight managers (FWFM) in charge of point-to-point and FWFM Special-Use mission flights. Additional training required by FHP and the FWFM Special-Use Aerial Survey Observer Task Book are available at www.fs.fed.us/foresthealth/aviation/training.shtml. All aerial reconnaissance and photography mission flights shall utilize a qualified FWFM Special-Use for fixed wing and qualified Helicopter Manager for rotor wing. Agency personnel are not permitted on board restricted category aerial application aircraft and full PPE is required for aerial application pilots operating low level.

Typical operational altitudes:

- Aerial Application in either fixed or rotor-wing, low level (below 500 feet AGL)
- Fixed-wing Aerial Survey ~2,000 feet above ground level (AGL)
- Rotor-wing Aerial Survey in accordance with IHOG, used in special circumstances and may be low level
- Fixed-wing Aerial Photography and Remote Sensing, highly variable up to ~18,000 feet

6.0 Aviation Training

6.1 Aviation Training for All Flight Activities and Positions

Aviation training is essential to aircraft pilots (both contract and employee), aviation users, supervisors, and managers to ensure that they are knowledgeable of the inherent hazards of aviation operations. The Forest Service Aviation Training Program is a “fire” and “non-fire” system. The [National Wildland Coordinating Group’s \(NWCG\)](#) guides the fire qualifications ([FSH 5109.17](#)), while the [Interagency Aviation Training Guide](#) regulates the “non-fire” qualifications. Personnel serving in NWCG positions need only meet the qualification and currency requirements required in [PMS 310-1/ FSH 5109.17](#) or other interagency guidance as appropriate (Smokejumper Spotter, [Interagency Aerial Supervision Guide \(IASG\)](#), etc).

The objectives of selection, recruitment, development and training are to improve safety, quality and efficiency by placing employees in jobs to which they are suited and qualified. Although this concept is obvious, it is fundamental at all levels within an agency and worthy of emphasis. The appropriate experience and training requirements for safety-related posts much be defined, monitored and recorded.

Regional Supplement:

Forest Supplement:

6.2 Responsibility

The Washington Office, Branch Chief, Aviation Safety Management Systems is responsible for national oversight of the aviation safety education program and aviation accident prevention efforts ([FSM 5720.45](#)).

It is management’s responsibility to provide training and career development opportunities to personnel under its control, to expand, improve, correct deficiencies, or meet job performance requirements.

It is every employee’s responsibility to take advantage of aviation training opportunities and to notify their supervisor of any aviation training they believe they require for accomplishing their jobs safely and efficiently.

Regional Supplement:

Forest Supplement:

6.3 Instructor Standards

Aviation trainers provide specialized training in many aviation job skills, e.g., helitack, aerial attack, SEAT manager, aerial ignition, rappel, and helicopter management. The Interagency Aviation Training (IAT) guide identifies position training requirements for non-fire aviation functions. Specialized training courses can be accessed on the IAT website at: <http://iat.nifc.gov/online.asp>.

Personnel serving in NWCG instructor positions need to meet the qualification and currency requirements in [FSH 5109.17 Ch 30, part 31](#) which refers to the [PMS 901-1 Field Manager’s Course Guide](#).

Regional Supplement:

Forest Supplement:

6.4 Records Management

All employee training records shall meet the requirements stated in the [FSH 5109.17](#) for all NWCG qualifications. All training records for non-fire qualifications (IAT) shall either reside with the Training Officer or the Forest Aviation Officer.

Each operating unit needs to develop and implement plans for the identification of initial and recurrent aviation training needs specific to its missions.

Areas of aviation training are:

- Orientation and basic aviation safety for all users
- Flight Manager Training
- Dispatching and flight-following procedures
- Management of aviation operations and equipment
- Planning, risk assessment and execution of projects using aviation resources
- Proficiency and special mission training for pilots
- Technical training on aviation equipment and aircraft maintenance
- Advanced safety management systems (SMS) and quality assurance for aviation professionals and specialists

Regional Supplement:

Forest Supplement:

6.5 Tuition and Travel

Forest Service management is dedicated to conducting or providing for professional and technical training of employee or contract personnel at all levels of the organization that use and/or influence the use of aviation resources. Washington Office/Regions are to provide adequate levels of funding for the tuition and travel to attend training that will maintain aviation personnel currency and advance their skills.

Regional Supplement:

Forest Supplement:

6.6 Development

The Forest Service encourages development of interested personnel who desire to pursue an aviation career path. Developmental positions (e.g., Regional Aviation Management Specialists) and all positions that have aviation operations responsibility are advised to attend courses that encompass Advanced Aviation Management Training (AAMT) [Aviation Training](#).

Regional Supplement:

Forest Supplement:

6.7 IAT/NWCG Crosswalk

NWCG/ FSH 5109.17 Qualifications	IAT Resource Qualifications
HECM	Aircrew Member
ACDP	Aircraft Dispatcher
AOBD, ASGS, ATGS	Aviation Manager
AOBD, ASGS,ATGS,HLCO	Fixed-Wing Flight Manager –Special Use
HMGB	Helicopter Manager-Resource
AOBD, ASGS, HEB1/2	Project Aviation Manager
AOBD	Supervisor

The positions listed in the NWCG/[FSH 5109.17](#) Qualifications column will crosswalk into the non-fire IAT Resource Qualifications.

If individuals do not meet the NWCG/[FSH 5109.17](#) Qualifications (above), they shall follow the training requirements found in the [IAT Guide](#) in order to conduct/oversee non-fire resource aviation operations.

Regional Supplement:

Forest Supplement:

6.8 Aviation Contracting Officer Representative (COR) Requirements

Aviation COR's must meet initial training and maintenance requirements as stipulated in Agency Acquisition Regulations (AGAR).

Regional Supplement:

Forest Supplement:

6.9 Crew Resource Management (CRM) Training

RESERVED

7.0 Airspace Coordination

7.1 Interagency Airspace Coordination

Interagency airspace coordination is accomplished through the Interagency Airspace Steering Committee (IASC) chartered under the National Interagency Aviation Council (NIAC). Guidance and education is provided through the [Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.2 Fire Traffic Area (FTA)

The FTA provides a standardized initial attack sequence structure to enhance air traffic separation over wildfire or all risk incidents. The structure emphasizes established communications, clearances and compliances. The FTA process will be used by all tactical aircraft. The local dispatch center will be the initial point of contact for aviation resources approaching and departing the FTA when no aerial supervision is in place. If aerial supervision is not on scene, the first responding aircraft must establish/control the FTA until aerial supervision arrives, as specified in the [Interagency Aerial Supervision Guide \(IASG\)](#).

See the [Interagency Aerial Supervision Guide \(IASG\)](#) for details.

Regional Supplement:

Forest Supplement:

7.3 Temporary Flight Restriction (TFR)

In order to enhance safety during an incident, the FAA may be requested to issue a TFR that closes the airspace to non-participating aircraft (with some exceptions). While there are currently nine different types of TFR's, the most commonly issued TFR for wildfire is [14 CFR 91.137 \(a\) 2](#) which is explicit as to what operations are prohibited, restricted, or allowed. Aviation Managers requesting a TFR should be familiar with the ordering procedures, coordination protocol and exceptions that are outlined in [Chapter 6](#) of the [Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.4 Aircraft Transponder Code (Firefighting)

The FAA has provided the 1255 Transponder code as the national designation for firefighting aircraft. It is not agency specific. The code should be utilized by aircraft responding to and operating over fire incidents supporting suppression operations (unless otherwise directed by Air Traffic Control (ATC)). It is not to be used for repositioning or during cross-country flights.

Regional Supplement:

Forest Supplement:

7.5 Airspace Boundary Plan

When resources are dispatched by more than one unit to an incident that shares a common boundary, care should be taken to ensure safe separation and communication of responding aircraft. Boundary

Plans should be prepared that focus on a 10 NM wide “neutral airspace” corridor for mutual or exchanged initial attack area’s or zones.

7.5.1 International Airspace Boundary – Mexico

Aircraft entering Mexican airspace must follow established protocols and communicate mission details to the appropriate Interagency Dispatch Center. Aircraft must **not** enter Mexican airspace without consent from the coordinating authorities and concurrence from the identified aerial supervision. Permission must be received from National Forestry Commission of Mexico (CONAFOR) prior to entering Mexican airspace.

7.5.2 International Airspace Boundary – Canada

Aviation operations across the U.S.A./Canada border must be conducted in accordance with The Canada/United States Reciprocal Forest Fire Fighting Arrangement (NMG chapter 40) or the normal US Customs and Border Protection procedures. Flights must follow protocol established by the respective coordinating authorities and involve the appropriate Dispatch Center. Such flights usually require prior notification, special tracking procedures and an understanding of the mutually agreed upon operating parameters.

Regional Supplement:

Forest Supplement:

7.6 Airspace Deconfliction

Airspace de-confliction can occur for both emergency response and non-emergency aviation activities.

De-confliction can be accomplished through the following measures:

- Pilots must obtain all information pertinent to flight before flying. This is accomplished by obtaining a briefing from the FAA through the Flight Service Stations. This is the official source of NOTAM information.
- Dispatching units may obtain scheduling information from DoD units that have Special Use Airspace or Military Training Routes and share this information as “hazards” information on the Resource Order when the aircraft is dispatched. For non emergency flights, information may be shared through common communication protocol.
- Aviation Internet websites are prolific on the internet. When used for obtaining airspace information, the user must be aware of any disclaimers regarding the timeliness of the information posted. The FAA’s US NOTAM office provides current TFR information through DINS (DoD Internet NOTAM Service) at <https://www.notams.faa.gov>.

Regional Supplement:

Forest Supplement:

7.7 Airspace Conflicts

Aviation personnel have a responsibility to identify and report conflicts and incidents through the [Interagency SAFECOM \(Safety Communication\) System](#) to assist in the resolution of airspace conflicts. When a conflict or incident occurs, it may indicate a significant aviation safety hazard. Conflicts may include Near Mid Air Collisions (NMAC), TFR intrusions, and FTA communication non-compliance. Further guidance is available in [Chapter 8 of the Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.8 Airspace Agreements – Memorandums of Understanding

When Special Use Airspace (SUA's), Military Training Routes (MTR's), Slow Routes (SR's), or Aerial Refueling Routes (AR's) are located over lands within an agency's jurisdiction or within their area of normal flight operations (fire or non-fire), the agency should consider instituting an agreement with the appropriate DoD entity that schedules the airspace. Airspace agreements establish protocol for emergency and non-emergency contacts. They provide local level leadership a tool that defines protocols to address recurring activities, coordination of time critical responses, deconfliction and resolving issues in a timely manner. Initiation of an agreement can begin by contacting the Military Representative to the FAA located at FAA Service Centers, Air Force Representative, Navy Representative, and Department of Army Representative. A template and sample format is provided in [Chapter 12 of the Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

8.0 Aviation Security

8.1 Aviation Security

The policies and procedures in this chapter when implemented are intended to make the theft of FS aircraft more difficult and time consuming and therefore reduce the threat to our facilities from criminal elements.

The FS will provide an aviation security program that will include:

- Aviation facilities and aircraft security standards
- Aviation security measures that respond to alerts of the Homeland Security National Terrorism Alert System (NTAS)
- Quick response emergency procedures

Regional Supplement:

Forest Supplement:

8.2 FS Facilities Security Risk Assessments

Each Forest Service aviation facility must complete a risk assessment on a timeline based on its Facility Security Level (FSL) to determine the security standard. The FSL can be determined using the document Facility Security Level Determinations for Federal Facilities, An Interagency Security Committee Standard.

The risk assessment must include an analysis of:

- The vulnerability level of the facility, which is any weakness in the design or operation of a facility that can be exploited by an adversary.
- The probability of threat, or the likelihood of an undesirable event occurring over time.
- The severity of event consequences, which is the level, duration, and nature of the loss resulting from an undesirable event.

Reference the [FSH 5709.16 Chapter 50](#) for the FS Risk Assessment.

Regional Supplement:

Forest Supplement:

8.3 FS Security Response Actions

The objective is to ensure that the FS is prepared to increase security standards at agency aviation facilities in response to an alert of the Homeland Security National Terrorism Alert System.

It is FS policy to immediately adjust the level of aviation security any time an NTAS Alert is issued for the facility.

Regional Supplement:

Forest Supplement:

8.4 General Aviation Security Awareness Programs

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Regional Supplement:

Forest Supplement:

8.5 Aircraft Security Information (Cooperators)

The security of cooperator provided aircraft and equipment is the responsibility of the cooperator.

Regional Supplement:

Forest Supplement:

8.6 TSA Commercial Airport Security

Commercial airport security requirements can be found at the [Transportation Security Administration \(TSA\)](#) web site.

9.0 Aviation Facilities

9.1 General

All facilities managers are responsible for providing aviation facilities, within their respective area, that are safe, adequate, and are in compliance with applicable Forest Service regulations.

Regional Supplement:

Forest Supplement:

9.2 Permanent Aviation Facilities

These facilities (helibases, retardant bases, and airport facilities) are permanent installations (owned and leased) and are used on a continuous or seasonal basis for aviation operations. These include aviation facilities on Forest Service property and facilities on non-Forest Service land where Forest Service has primary responsibility for operations, maintenance, and oversight. Facility base reviews shall be conducted in accordance with the [Interagency Helicopter Operations Guide \(IHOG\), Appendix E](#); [Interagency Airtanker Operations Base Guide \(IATOBG\), Chapter 5 Section B](#); and [Interagency Standards for Fire and Fire Aviation Operations, Chapter 18](#).

Regional Supplement:

Forest Supplement:

9.3 Temporary Aviation Facilities

Temporary bases are sites that are used on a temporary or intermittent basis (helispots and remote airstrips). Sites not located on Forest Service land must be pre-approved and use shall be documented in an Agreement. Each site should be cataloged as to location, description, local hazards, use procedures, agreements, and contacts. Preseason inspection and maintenance should be completed as necessary to meet agency safety requirements.

Regional Supplement:

Forest Supplement:

9.4 Safety

Aviation facilities must comply with safety regulations outlined in Forest Service manuals, guides, handbooks, and the [Occupational Safety and Health Act \(OSHA\)](#). Building equipment and landing surfaces will be inspected by FOAs annually to identify any maintenance or safety deficiencies.

Regional Supplement:

Forest Supplement:

9.5 Agency Owned/ Operated Facilities

Refer to the [Building and Facilities Related Handbook FSH 7309.11](#) for information regarding:

- Planning
- Development
- Management
- Special-Use Facilities
- Records and Reports

Regional Supplement:

Forest Supplement:

9.6 Agency Owned/Operated Airstrips

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Regional Supplement:

Forest Supplement:

9.7 Leasing

Leased facility needs can be met through the Acquisition Management (AQM) organization, either via lease or grants and agreements. These are more fully described on the AQM website:

<http://fsweb.wo.fs.fed.us/aqm/>. Facilities can also be acquired on Government-owned land by means of land exchanges.

Regional Supplement:

Forest Supplement:

9.8 Funding

RESERVED

Regional Supplement:

Forest Supplement:

9.9 Land Use Agreements

Simplified acquisition procedures should be used to acquire the use of property or facilities for emergency incidents. Emergency incident agreements do not require special leasing authority. Procurement officials with warrant authority may enter into these agreements. More detailed information is available in the [Interagency Incident Business Management Handbook, Chapter 20](#).

Regional Supplement:

Forest Supplement:

9.10 Facilities Security

All sites will be provided with appropriate physical security measures commensurate with the risk of loss of operating capability, irreplaceable data, or expensive property ([FSH 7309.11, 41.2](#)).

- Equip all buildings with locks. The keys shall be managed by the facility manager or other individual designated by the line officer. Where emergency access by non-unit personnel is necessary for fire management and other common occurrences, use master locks.
- Install signs and fences and/or provide other physical deterrents to warn and retard entry to all remote sites containing vulnerable operations such as telecommunications and research projects. Consider maintainability in the design of fences in areas subject to heavy snow, ice, and wind conditions.
- Restrict entry of unauthorized personnel into operations such as flammable, chemical and pesticide storage rooms or buildings, explosive storage facilities, computer rooms, biologically sensitive and controlled-environment areas, and others as the facility manager and policy deem necessary.

Refer to [Chapter 8](#) in the National Aviation Safety and Management Plan and [FS Manual 5709.17 Chapter 50, Aviation Security](#) for additional facilities security.

Regional Supplement:

Forest Supplement:

10.0 Appendix

10.1 Sample Letter of Cooperator Approval

RESERVED

10.2 Cooperator Approval Guide

RESERVED

10.3 Policy Change – FSM 5700 and 5709.16, Instrument Flight Conditions and Night Flying

File Code: 5700

Date: October 13, 2010

Route To:

Subject: Policy Change - FSM 5700 and 5709.16, Instrument Flight Conditions and Night Flying

To: Regional Foresters, Station Directors, Area Director, Director, Law Enforcement and Investigations, Regional Fire Directors, Regional Aviation Officers

Current Forest Service (FS) policy prohibits single-engine flight in Instrument Meteorological Conditions (IMC) and at night except for ferry and cargo- carrying flights. Technology has made single-engine turbine airplanes and helicopters as safe to fly in IMC and at night as multi-engine aircraft when equipped to do so.

All Federal Aviation Regulations (FAR) which address IFR and night flight will be required for these flights.

Effective on this date, FSM 5716.12 and 5716.2 will read as follows:

FSM 5700

5716.12 – Instrument Flight Conditions

Use only multi-engine or turbine powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (FAR) Part 135, Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

5716.2 - Night Flying

Use only multi-engine or turbine powered single-engine aircraft for night flights that meet the applicable requirements in FAR Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Pilots flying night missions shall land at airports or heliports that meet Federal Aviation Administration (FAA) lighting standards, except:

1. This restriction does not apply to helicopter flights utilizing Night Vision Goggles (NVG).

Low-level helicopter flight operations will only be conducted using NVG. Helicopters will be approved for such an operation.

Reciprocating engine powered single-engine aircraft flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with FAR Part 91.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

Effective on this date, FSH 5709.16, 11.26 will read as follows.

FSH 5709.16

11.26 – Operational Requirements – All Pilots

Requirements for all pilots flying Forest Service missions are as follows:

1. Instrument Flight Conditions. Use only multi-engine or turbine-powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (FAR) Part 135, Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

2. FSM 5716.2 - Night Flying. Use only multi-engine or turbine-powered single-engine aircraft for night flights that meet the applicable requirements in FAR Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Pilots flying night missions shall land at airports or heliports that meet Federal Aviation Administration (FAA) lighting standards, except:

1. This restriction does not apply to helicopter flights utilizing Night Vision Goggles (NVG).

Low-level helicopter flight operations will only be conducted using Night Vision Goggles (NVG). Helicopters will be approved for such an operation.

Reciprocating engine powered single-engine aircraft flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with FAR Part 91.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

This policy change will be in effect until rescinded.

Questions regarding this policy change should be directed to Paul Linse, 202-205-0974.

/s/ James E. Hubbard

JAMES E. HUBBARD

Deputy Chief, State and Private Forestry

cc: Karyn L Wood, Wm C Waterbury, Ron Hanks, Pat Norbury, John A Nelson, Richard Kvale,
Patricia Hiram, Tom Harbour, Paul Linse

10.4 Flight Authorization on Department of Homeland Security (DHS) Aircraft



Forest
Service

Washington, DC 20250
1400 Independence Avenue,
SW
Office
Date: May 20, 2008

File Code: 5700/5300

Route To:

Subject: Flight Authorization on Department of Homeland Security (DHS) Aircraft

To: Director, Law Enforcement & Investigations

This letter will permit Forest Service Law Enforcement & Investigations (LEI) employees on official duty to fly aboard Department of Homeland Security (DHS) owned and operated aircraft while performing joint law enforcement operations and coordinating missions with DHS agencies.

Forest Service Manual (FSM) 5704.7 previously required that all Forest Service employees "not ride in any aircraft or with any pilot not properly approved." That provision was inadvertently dropped in a FSM revision and is in the process of being restored. Regional Aviation Management plans still retain that requirement.

The Forest Service law enforcement program has unique mission requirements and a need for close interagency coordination and cooperation with the Department of Homeland Security (DHS). Forest Service employees working to fulfill the LEI mission are hereby exempt from the requirements to only use Forest Service approved aircraft and pilots when using aircraft and pilots meeting DHS requirements.

Field-level LEI employees are required to notify the Regional Special Agent-in-Charge and Washington Office employees the Director of LEI, when working under this exemption.

The Director of LEI is responsible for ensuring overall employee safety under this exemption.

/s/ Ann M. Bartuska (for)

ABIGAIL R. KIMBELL

Chief

cc: pdl wo chief nlt mailrooms

RAO's

RASM'S

Karen Wood

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Ron Hanks